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ABSTRACT

This publication is a comprehensive curriculum guide designed to assist local educators in planning for comprehensive business programs at the secondary and postsecondary levels. Information is of value for use by teacher educators when preparing students for teaching careers. The curriculum guide is divided into 18 sections. The first five sections and the last section deal with major philosophical as well as current issues relevant to business education. The other sections deal with specific subject areas: Orientation and Exploration in the Business, Marketing and Management Occupational Area; Infusion of Career Education, Metrics, and Economic Education; Mathematics for Business; Basic Business and Economic Education Programs; Accounting Programs; Data Processing Programs; Clerical, Secretarial, Word Processing, and Administrative Office Careers; Business Communications and Word Processing Programs; Marketing and Distributive Education Programs; Cooperative Method in Vocational Education; Adult and Continuing Education Programs; and Small Business Administration Programs. These sections provide materials for development of programs and courses and include discussion of course objectives, issues and problems, content, methodology, and sources of teaching aids. Extensive appendixes include a community occupational survey, values continuum, mainstreaming resources, recommended program sequences, and annotated bibliographies for several areas. (Author/YLB)

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BUSINESS EDUCATION INTO THE EIGHTIES

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BUSINESS EDUCATION INTO THE EIGHTIES

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Wilma Jean Alexander
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ABSTRACT

Title: Business Education into the Eighties

Name of Developer: Dr. Wilma Jean Alexander, Editor (original)
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Through contractual agreement with Illinois State
Board of Education, Department of Adult, Vocational
and Technical Education, Research and Development Section

This publication is a comprehensive curriculum guide designed to assist local educators in planning for comprehensive business programs at the secondary and post-secondary levels. Information is of value for use by teacher educators when preparing students for teaching careers. The curriculum guide is divided into eighteen sections. The first five sections and the last section deal with major philosophical as well as current issues relevant to business education. The other sections deal with specific subject areas: Orientation and Exploration in the Business, Marketing and Management Occupational Area; Infusion of Career Education, Metrics, and Economic Education; Mathematics for Business; Basic Business and Economic Education Programs; Accounting Programs; Data Processing Programs; Clerical, Secretarial, Word Processing, and Administrative Office Careers; Business Communications and Word Processing Programs; Marketing and Distributive Education Programs; Cooperative Method in Vocational Education; Adult and Continuing Education Programs; Small Business Administration Programs.

Selected members of the Illinois Business Education Association served as writers for the various sections. Individual members of the Publications Committee of IBEA served as liaison editors. The content submitted for four areas was reviewed and discussed by Advisory Committees. An attempt was made to represent the ideas and philosophies of educators throughout the state in the contents of this publication. Most writing committees also had representatives from three levels of education: secondary, community college, and four-year colleges/universities.

The content sections include discussion of objectives for the course(s), issues and problems, content, and methodology. Annotated bibliographies as well as sources of teaching aids are included for several areas.

RATIONALE FOR BUSINESS EDUCATION

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RATIONALE FOR BUSINESS EDUCATION

- INTRODUCTION
- THE RESPONSIBILITY OF BUSINESS EDUCATION
- BUSINESS EDUCATION IN THE SECONDARY SCHOOL
  - Goals of Secondary School Business Education
    - Occupational Education
    - Basic Business and Economic Education
    - Preparation for Advanced Study
  - Programs
  - Challenges on the Secondary Level
    - Curriculum Development
    - Development of Positive Attitudes
    - Articulation
- BUSINESS EDUCATION IN THE COMMUNITY COLLEGE
  - Goals of Community College Business Education
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RATIONALE FOR BUSINESS EDUCATION

Introduction

Forty-five million boys and girls walk, ride, or cycle to school each fall to begin another year in the educational process. Their arrival is convincing evidence of a nation's faith in the value of education. Many of these young people will seek out business classes where they can learn about business, prepare for business careers, and develop consumer skills. Business education makes unique contributions to, and is an integral part of, the educational system in the United States.

Problems in education have been solved and new ones have arisen with the passage of time. One compelling problem, which business education stands ready to help solve, is this: more than 900,000 youth without job skills leave secondary schools as dropouts each year.

Government agencies, school administrators, and teachers have made a conscientious effort to obtain information that can be used as the basis for work force projections. Reliable projections are needed so that (1) job requirements can be matched with skills of prospective workers, and (2) new curricula can be developed and old curricula revised.

Many worldwide and national forces and problems must be considered in charting the future course of education. Among factors that will have an effect on education and employment in the 1980's are:

1. The change from a production-oriented to a service-oriented economy
2. The change in technology
3. The fluctuations in the economy
4. The increased need for post-secondary occupational programs
5. The need for increased adult education
6. The movement to eliminate all types of discrimination
7. The need to conserve energy and energy-based products

None of these can be ignored if business education is to meet the challenge relative to educational needs of the 1980's.

The Responsibility of Business Education

The overall responsibility of business education is to plan and implement programs that develop necessary competencies for youth and adults. If this formidable responsibility is to be met, teachers and administrators must:

1. Determine work force needs
2. Identify necessary competencies
3. State goals clearly
4. Evaluate and revise courses and curricula frequently to reflect social and technological change, and changes in work force needs
5. Make articulation a part of planning at every level
6. Give scrupulous attention to instructional techniques and innovation...and do all this within budgetary limitations.

Business Education in the Secondary School

"The business education curriculum in the 1960's and 1970's...reached a maturity that permits it to stand alongside all other subject areas in the high school curriculum and to point with pride to the contributions that it makes to the total education process."[1] Business teachers, however, must not rest on past accomplishments. The future of the discipline depends on successful efforts to update and improve programs and a willingness to be innovative in approach and visionary in outlook.

Goals of Secondary School Business Education

To provide educational opportunities to service the needs of the youth of the nation, the business education curriculum in the public schools must include:

1. Occupational and career guidance, career orientation, and exploration of job opportunities and requirements in business.
2. Development of occupational knowledge, attitudes, and skills that are oriented around job classifications of (a) clerical, (b) stenographic, (c) bookkeeping and accounting, (d) data processing, (e) marketing and distributive education, (f) business ownership and management.
3. Development of consumer knowledge, attitudes, and skills that permit one to make appropriate and reasoned decisions in selecting, buying, and using consumer goods and services.
4. Development of understandings regarding the organization and operation of the nation's economic system that will permit one to make personal economic decisions that are appropriate for the economic system as a whole and cast votes for elected officials who are most likely to promote the best economic interests of the nation.
5. Development of personal-use skills that will permit one to become a fully functioning individual in the personal business activities of life.
6. Course offerings that serve as the basis for advanced study in business.[2]

Occupational Education. Business education has traditionally provided instruction for careers in business. To serve as a basis for planning meaningful occupational education, educators must conduct community surveys and study carefully data from the Bureau of Labor Statistics concerning job opportunities. Such information, updated periodically, is of value to vocational planners, administrators, parents, and students as well. The Bureau projects, for example, that:

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[1] Floyd and Doris Crank, "Historical Perspectives of Education for Business," *Curriculum Development in Education for Business*, Fifteenth Yearbook of the National Business Education Association (Reston, Virginia: National Business Education Association, 1977), p. 9.

[2] *Ibid.*, p. 12.

1. The civilian labor force in 1985 will have approximately 104.3 million persons, a 19 percent increase over the 1976 level of 87.5 million. The increase in the civilian labor force since 1960 is largely due to the increase of women who have entered the labor market.
2. White-collar workers will represent over half of the total civilian labor force by 1985. The number will increase from approximately 44 million white-collar workers in 1976 to a predicted 54 million workers in 1985.
3. Employment in clerical occupations will grow about 29 percent between 1976 and 1985, increasing from 15.6 million to 20 million workers. A substantial growth is expected for receptionists, typists, and secretaries, largely as a result of the anticipated growth in the expanding business services and health and medical care industries.
4. Employment of sales workers is expected to increase between 1976 and 1985 from 5.5 million to 6.4 million workers, an increase of 17 percent.
5. Retirements and deaths will account for nearly two-thirds of all job openings. The need to replace workers who retire or die will be a more significant source of job openings than employment growth in all major occupational groups.
6. Clerical worker job openings, due to replacement, will be approximately 5.8 million as compared to approximately 4.2 million as a result of employment growth. For sales workers, job openings due to replacement will be approximately 2 million and those due to employment growth will be approximately one million.[3]

The information cited from the Bureau relates specifically to the employment of clerical and sales workers. Data are also available about many other fields such as service, professional and technical, and managerial. These workers, too, as well as homemakers, will use information learned in business education courses and through business experiences.

Opportunities abound for students in business if their preparation is complete and if their attitudes are positive. Teachers will need to identify those opportunities for their students and help them to be ready to read "The Road Map to Job Success."

Students need to be informed that typewriting will be more essential to the office of the future than it has been in the past. Not only office employees but numerous other types of employees will communicate with people and machines through a typewriter keyboard. Today banks, stock brokers, hospitals, and other industries use standard typewriter keyboards with special letter keys to "communicate" with people and equipment in their local office or in distant places. It is thought that this procedure will become more common each year and that, in the not-too-distant future, keyboarding skill (facility in the operation of typewriter and 10-key keyboards) will be a communication tool in most offices as well as in most homes.

With this increase in the number of typewriting students, business educators will have greater opportunities for recruiting for other courses in the business curriculum. Parents, administrators, counselors, other teachers within the schools, and most of all students, need to be made aware of the excellent employment opportunities available in business.

Students of better-than-average ability should be informed about, and urged to prepare for, management-style office careers. Illustrative management job titles, some of which might be used by different firms to mean the same office position, include these listed by Bergerud and Gonzales: Manager, Supervisor, Coordinator, Administrative Support Supervisor, Secretarial Services Administrator, and Management Services Director.[4]

Basic Business and Economic Education. "Basic Business" represents business education's contribution to the economic education of students. This part of the business education program focuses on business and the part it plays in the American economic system. Courses usually associated with the terms "basic business" include: general business, introduction to business, business economics, consumer education, business law, and business principles and management.

Career education has a strong relationship to economic education. "Two of the most important tasks that individuals face as they move through life are the earning and spending of money. Vocational educators always have been concerned with helping people acquire employable skills, and consumer educators always have been concerned with helping people learn to use wisely their financial resources. Business education, for many years, has been a major contributor to the realization of these two goals of education."[5]

In the area of consumer education, students and educators need to develop for themselves new concepts of a "standard of living" which include quality as well as, or perhaps instead of, quantity, with important consideration given to product maintenance and energy conservation.

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[3] U.S., Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Handbook* (1978-79 ed.; Washington: Government Printing Office, 1978), pp. 19-25.

[4] Morly Bergerud and Jean Gonzales, "Word Processing Concepts and Careers," 1977 (unpublished manuscript), cited by Marcia A. Anderson and Robert W. Kusek, *Word Processing Curriculum Guide* (Springfield, Il; Illinois Office of Education, Department of Adult, Vocational and Technical Education, 1977), p. 24.

[5] Crank and Crank, *op. cit.*, p. 10.

Illinois business educators have attempted to achieve a balance in the high school curriculum between basic business/consumer education and vocational education. The activities of consumer advocates, consumer educators, and legislators at both federal and state levels have thrust education for the consumer into a position of prominence. Production of goods and services has reached unprecedented heights. The decision making required of the consumer has become even more complex with the proliferation of consumer products. The task of the educator of the future will be to continue to provide information in the classroom so that consumers can be deeply involved in making correct choices in the purchasing and use of goods and services. Since consumer education is essentially multidisciplinary in nature, business educators in many schools are helping to develop curricula in consumer education and are teaching it in the business education departments of their schools.

Economic education encourages a "larger view" of the economy and has as a primary goal the development of economic literacy as a basis for citizenship. Students study fundamental economic concepts and then apply what they have learned as they ponder economic problems—both personal and national in scope. A major strength of economic education is its emphasis on the reasoning process in the solution of problems.

Preparation for Advanced Study. Throughout the business education curriculum are courses which develop skills and knowledge that provide the bases for advanced study. Preprofessional offerings are available in the data processing, accounting, management, marketing, and secretarial areas.

Highly motivated, capable students who have expressed a desire to extend their education beyond high school should receive encouragement from their business teachers. Classroom experiences are enriched through self-directed study and challenging projects. Special efforts must be made to see that these students receive instruction about career opportunities available to people with advanced training.

Programs

General objectives for the high school business education curriculum may vary among schools as to courses taught at specific grade levels. However, a comprehensive business education department will probably offer the following vocational, personal-use, and pre-professional sequences or areas of study:

Consumer/Economic Education
Clerical/Secretarial
Business Management
Bookkeeping/Accounting
Data Processing/Information Systems
Marketing and Distributive Education
Word Processing
Business Communications

Major efforts have been made and will continue to be made to help high school students recognize the job opportunities available to them if sequences of study are pursued. In all programs, there must be emphasis on learning the basic skills needed to be successful in business as well as in life.

The area vocational center provides comprehensive vocational education programs for people in a relatively large geographical area through a cooperative arrangement among school districts. The arrangement makes possible a central specialized facility with up-to-date equipment, diversified curricula, and specialized personnel. The center also may coordinate guidance services and assume responsibility for placement services. Upon completing a program, students can either enter the world of work with a salable skill or pursue further education.

The area vocational center concept was first approved in Illinois in 1965, and in 1979 there were thirty such centers in operation. It is expected that additional centers will be organized until comprehensive programs are available to all students in Illinois. New centers are required to provide a minimum of 15 occupational programs with at least one in each of five occupations including business, marketing and management occupations.[6]

Challenges on the Secondary Level

Business education will justify its future existence by continuing to offer programs that develop necessary competencies. This can be done only to the extent that challenges are identified and met. Some of the most important challenges are discussed in the paragraphs that follow.

Curriculum Development. Accepting the challenge of the continuing battle against obsolescence is a vital part of curriculum development. Schools must provide the type of education that will help students keep pace with a world of work that is associated with technological change: Every teacher, regardless of geographical locale, must have current information as to what is happening in businesses within respective placement areas and elsewhere in the state and in the nation. Curricula must be planned that can satisfy career objectives of students for "now" and provide background for further training in the future. Teachers, when planning, must maintain an appropriate balance among rapid technological changes, proven pedagogy, and available funds.

An increasing number of business-related employment opportunities call for the cooperation of business education teachers with teachers of agriculture, home economics, and industial technology in the development of hybrid programs for new kinds of jobs. Especially important is the need for business and health occupations educators to work together in the establishment of joint educational programs in the booming health industry.

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[6] *Illinois Area Vocational Centers: Data Report/FY 78* (Springfield, IL: Illinois Office of Education, Department of Adult, Vocational and Technical Education, May, 1979), pp. 1-2.

Electronics technology has accelerated to such an extent in the past few years that units of instruction and courses such as office machines, information systems, data processing, accounting, and the like require ever-changing emphases to match the current technologies.

We need to ask ourselves how many of the following trends or changes are reflected in our curriculum:

1. The growth of branch and franchise operations, and the way many businesses keep records in a standardized format, requiring accuracy of input.
2. Booming sales of word processing equipment and the related reorganization of office functions.
3. The growth of office employment opportunity in government agencies and large business. (Much of our curriculum still prepares the student for small office applications.)
4. The Privacy Act of 1974. (Its effect on records management instruction, for example.)
5. The substitution of telephone communication for much written communication.
6. The growth in sales of electronic calculators....
7. Growth of reprographics services and changes in copying and duplicating methods....emphasis on "copy preparation."
8. The nearly complete conversion to the ten-key keyboard for office computing machines.
9. The development of portable computers.[7]

Keeping up with business technology will necessitate purchasing some new equipment, developing new courses of study, utilizing community resources, and emphasizing cooperative vocational education programs.

Development of Positive Attitudes. Business people are increasingly concerned about the skyrocketing costs of operating today's businesses. Equipment manufacturers, with new technology, have come to the aid of business in an effort to increase productivity. Business educators should help students (1) recognize the need for well-developed skills and abilities, (2) understand the necessity of being a flexible and "willing-to-learn" worker, and (3) realize the importance of producing to the best of one's ability at all times.

The movement for equality of employment opportunities undoubtedly will have a noticeable impact on business education in the 1980's. One responsibility of educators will be to help business executives view the value of all workers for the quality of work which can be done without discriminating on the basis of sex. Business educators must help students to understand the types of jobs which will be available to them upon graduation from high school, the opportunities for job growth if additional education is attained, the job requirements, the salaries available, and the opportunities for both women and men in business. In addition, business educators must give guidance and information to business students regarding opportunities for moving into supervisory, middle, and upper management positions and the study and experience which will be required for these positions.

Some secondary schools are finding greater interest on the part of the young men in courses such as office machine operation, accounting, and data processing. Business teachers will need to examine their own attitudes, classroom practices, counseling and guidance procedures, and instructional materials to see that no trace of sex bias exists in their classrooms.

Articulation. To maximize the value of educational experiences, business educators must become involved at the elementary school and junior high school levels. Business education and its contribution to the elementary school program is largely seen in the career education and consumer education programs. Business teachers should take the lead in these efforts and offer assistance as advisers, consultants, and resource people. Although typewriting is sometimes included in the elementary school program, enrollments do not seem to be experiencing any rapid growth.

The junior high school will continue to offer exploratory experiences and these experiences will continue to serve a guidance purpose for further study in high school. Presently junior high school business offerings consist primarily of typewriting, general business, and career exploration.

The problem of articulating the teaching of typewriting at the elementary, junior high school, and high school levels needs the attention of teachers at all three levels of instruction.

Technological advances during the 1980's might make it important that students develop keyboarding skill at an early age. Perhaps by the end of the decade, fundamental keyboarding skill will be developed in elementary school classrooms.

In Illinois, the secondary schools, community colleges, and four-year colleges and universities provide extensive offerings in business education. Business education at the community college level should have a more prominent place in postsecondary and adult education in the future. High schools, area vocational centers, and four-year universities and colleges will need to articulate business programs closely with the business programs provided in the community colleges.

Business Education in the Community College

The first public junior college in the United States was established in Joliet, Illinois, in 1901. Although acceptance by educators and the public was slow, growth continued in all parts of the nation; and today there are many statewide systems of junior/community colleges. Business programs in these institutions have become increasingly popular over the years, and they often attract more students than any other area of study.

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[7] Jeffrey R. Stewart, Jr., "Business Education in the 1980's and Beyond," *American Vocational Journal*, October, 1977, pp. 48-49.

Goals of Community College Business Education

The growing belief that every high school graduate should have access to college, and the escalating cost of education at traditional residential four-year colleges gave impetus to the junior college movement. Rapid technological changes in business and industry continue to give focus to the mission of the community college. The rising expectations of women, minorities, the disadvantaged, and the handicapped have coalesced to demand the educational opportunities that a community/junior college is uniquely equipped to provide.

In the early days of the development of the junior college, its primary purpose was to prepare the student for more advanced study at a senior college or university. In the more recent period of rapid growth, it has been accepted, generally, that it has two equally important missions: (1) preparation for the many careers requiring less than a baccalaureate degree, and (2) preparation for transfer to senior institutions. Although within this framework many individual needs can be met, it becomes increasingly apparent that such categorization is unduly restrictive.

Changes in job requirements demand continual upgrading of skills or learning of new skills. Adults, particularly women and minorities, are seeking opportunities to broaden their horizons. Many want to renew skills grown rusty through disuse, to acquire new skills, or, perhaps more importantly, to build confidence that they have skills and competencies of value to themselves and to an employer. With government mandates that the handicapped be granted access to opportunities which will allow them to move into the mainstream of society, the community college assumes another educational task. Minorities are taking advantage of educational opportunities which will enable them to fulfill their potential for personal growth and optimum career advancement.

The community college must continue in the future to provide programs for transfer, occupational training, general education, community services, and counseling and guidance.

Challenges on the Community College Level

The growth of business programs in community colleges is clear evidence that business education has successfully met challenges in the past. Future growth depends on continued expertise in dealing with challenges such as those discussed in the following paragraphs.

Curriculum Development. Because of the multifaceted character of the community college, the task of curriculum development has become extremely complex. The rapid growth of the community college forced educators at times to develop programs and curricula in a piecemeal fashion—borrowing from similar institutions, from textbooks and periodicals, and from sample curricula recommended by professional groups. The constraints of time, finances, and accountability will, in the future, demand more effective and more precise curricula to relate to the needs of the surrounding communities.

Due to the strong emphasis on occupational preparation, the following factors must receive careful attention in curriculum development and evaluation:

1. Business curriculum change and development must be based on occupational analyses and on preparation for entry into the labor market and/or successful advancement within the labor market.
2. Continuous studies of the employment needs and the contacts of business faculty and vocational directors with business and community leaders will help provide evidence of the current and projected needs of the community. (See Appendix A for an example of a Community Occupational Survey instrument. This form can be adapted by schools to meet local needs.)
3. Business curricula must be developed that will permit students to enter and exit a program at times suitable to their abilities, goals, and achievements.
4. The business curriculum should provide for a fusion of general education, transfer, and career objectives. Common knowledges, skills, and attitudes needed by each individual to be an effective worker, consumer, person, and citizen must be included.
5. Learning abilities, social and economic needs, and maturity of the students must be given consideration.
6. The delivery system employed must meet the needs of a diverse group of students; therefore, the curriculum should be designed to encourage instruction utilizing a variety of methods, media, and materials.
7. To assist in bridging the gap between the classroom and the job, the curriculum must provide opportunities for internships and/or simulated projects.
8. Curriculum maintenance, improvement, and restructuring should be based upon a continuous evaluation by faculty, administrative personnel, and advisory committees composed of interested persons from specific career areas in business and industry.

With the technology available, it is possible to accumulate a wealth of data undreamed of in the slower-paced past. These data can be quickly analyzed. It would thus appear that predictions and planning for the future should become increasingly precise and accurate. Such, however, seems not to be the case. Business cycles move faster than at any previous time in history. Sophisticated equipment is

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obsolete before the final payment is made. Indeed, schools cannot afford to purchase all the equipment to prepare students for jobs now open to them. Planning for the future is fraught with many uncertainties. The community college must remain flexible. Students' options must be kept open. Concepts and understandings must be stressed if students are to remain employable through periods of technological change; skill development alone will not suffice.

A realistic sense of mission, and criteria by which to measure the accomplishment of that mission, will enable the community college to continue to offer quality programs as it expands its influence.

Business education in the community college no doubt will continue to offer quality traditional transfer programs and two-year programs for the student whose objective is to acquire skills which will ensure immediate employability. Business education has an opportunity and an obligation, however, to offer much more. In an economic environment of increasing scarcity and continuing inflation, managing for personal business and financial well-being is crucial and complex. Citizens need to know about taxation, credit and installment purchasing, money management, financial planning and investing, estate planning, use of leisure time, and planning for retirement.

Even this approach, though it may seem broad, is not enough. A significant general education component should be an essential part of the educational experience of the competent, successful, integrated individual. To cope successfully with the complexities of their environment, students need to be able to:

Communicate effectively, both orally and in writing
Make computations
Solve problems
Understand self
Understand others
Understand the economic, social, and cultural environment
Adapt to change
Use creativity at work
Cope with conflict
Adapt and plan for the future
Achieve job satisfaction[8]

Future curriculum developers at the community college level must be cognizant of sociological, governmental, and technological change; a diverse student population; articulation with community, secondary schools, and four-year universities; and the needs of the community served. In its zeal to meet the needs of all of the citizens in the district, the community college may be in danger of attempting to be all things to all people.

Meeting Needs of a Diverse Community. As the nation grows older, so does its population. The number of 18-year-olds, the traditional source of the college freshman class, will peak in the early 1980's. The dramatic decline in the number of high school graduates will continue for several years but will be unevenly distributed within the state of Illinois. Since each community college serves a definite definable geographic area, demographic studies should be made to determine predictable age profiles of the potential student population within each district.

The community college student body represents a diverse group with a wide range in age, experiential background, goals, aspirations, and needs. Community college students sometimes have stronger ties with the community than with the school they attend. They come to class with specific objectives and leave immediately afterward for work, home, friends, other activities, or places not necessarily associated with college. School related activities and business organizations are of interest to some students, especially where the instructor is an enthusiastic supporter of student organizations and where students are encouraged to assume a major share of the responsibility for planning and carrying out activities. These organizations can benefit students by heightening their sense of belonging, providing experience in planning and follow-through, demonstrating the value of cooperative effort, and affording opportunities for the development of leadership qualities.

This heterogeneous student body receives course credit and class instruction in a variety of ways: credit for life experience; credit through demonstrated competence; transfer of credits from other institutions; and credit by means of self-paced, individualized, televised, computer-assisted instruction.

Telelectures, telenetworks, and videoconferencing techniques have been used for some time to bring together lecturers and groups of students via telephone, radio, or telelvision. The same technology that made these innovations possible for groups will conceivably make home-based instruction available to individual learners of various age and ability levels. The student will "call up" or "tune in" the day's lesson on home-based equipment at any time that is convenient. It seems quite feasible that a student could receive an associate degree yet never sit in a community college classroom where open discussion and interaction among and between instructor and students is a normal part of the educational process.

Articulation. The community college occupies a unique position in the educational system and in the community it serves. It can function with optimum effectiveness only if channels of communication are open in all directions. Articulation between the community college and the high schools, and between the community college and the transfer institutions, must facilitate the easy passage of the student through these systems. There should be a minimum waste of time and energy and resources. High school students need to know what is available to them at the community college and how they can fit what they already know into their program for continuing education. Junior college students need to know what courses they should take at the community college and what should be postponed to the junior and senior years at the university. Involved and active advisory committees of citizens and of business leaders are essential if the college is to serve the needs of the community and business.

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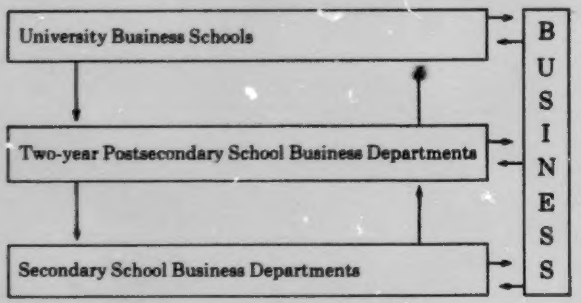
[8] Nelson, Robert E., *Methods and Materials for Teaching Occupational Survival Skills*, Springfield, IL, Illinois Office of Education, Department of Adult, Vocational, and Technical Education, 1978, p. 12.

Kruk and Orefice state that "the two-year postsecondary school business department is faced with a need to articulate or coordinate with three distinct groups: secondary schools, four-year colleges and universities, and business establishments."[9] Their concept of the articulation process is shown in the following diagram:

Figure 1. Articulation Between Various Educational Levels and Business


University Business Schools
Two-year Postsecondary School Business Departments
Secondary School Business Departments
BUSINESS

Experiences to Help Students Fulfill Personal Goals and Desires

Curriculum change and development are inherent in preparation for employment in the areas of office services, administrative supervision and management, marketing and distribution, financial and accounting occupations, computer operation and programming, agri-business activities, and many more. The business teacher should be constantly alert to changes in employment opportunities and the tasks and scope of skills needed for electronic and computerized operations of stores, offices, service facilities.

Providing adequate opportunities for children, youth, and adults to learn about career opportunities and the world of work requires that the competent business teacher consider all kinds of individualization of the learning activities through which students may learn and develop skills. Different opportunities for learning must be made available to students with different conceptual and experiential backgrounds. Alternative programs of learning—traditional classroom, modular time blocks, individualized reading and study, real-life experiences, work experience—are attractive to students with alternate interest and differing optimum methods of learning. The alert business teacher is aware of these imperative needs and seeks varying activities and opportunities for student activity and learning.

Business teachers must accept responsibility for providing enrichment of experiences that will help students fulfill personal goals and desires. These responsibilities and strategies have been succinctly outlined in the statement of the Policies Commission for Business and Economic Education, "This We Believe About the Expanding Leadership and Planning Role of the Business Educator in General Education."[10]

The business teacher should be equally concerned with development of a socio-economic program of activities and course work dealing with consumer problems, business-legal concepts, political and social responsibility of business and business workers.

The business teacher has been in the forefront of the career education program, assisting grade school teachers in the integration of career awareness activities related to business occupations in existing grade school activities. At the junior high school or middle school, the business teacher has been concerned with the courses in business career exploration, introduction to business, and personal-business skills of bookkeeping, budgeting, typing as a communications tool, and business-related mathematics. It has been a natural part of the secondary school business program to provide an opportunity for career exploration, orientation, and skill development both for students interested in immediate employment upon graduation and for those students planning enrollment in postsecondary school vocational programs.

Hoyt identified the role of the community college and career education as follows: "In determining the future development of career education in community colleges, consideration must be given to the variables of community college size and geographic location, emphasis of vocational versus liberal arts education, and age levels of students. The young student needs career exploration, while the adult is broadening skills or lifestyle. Meeting both needs requires community collaboration, faculty attitudinal changes, and cooperation with elementary and secondary school vocational programs. Basic elements of career education include: (1) a careful consideration of education goals; (2) helping students acquire change adaptation skills, including an understanding of the changing meaning of 'work'; (3) expansion of career exploration experiences to include academic credit and participation by community personnel and faculty; and (4) work experience opportunities for all students, regardless of academic choices. Finally, all community college efforts should be developed within the concept of career education as a lifelong process which links all stages of education and life."[11]

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[9] Leonard Kruk and Dominck Orefice, "Coordinating the Secondary School The Two-Year Postsecondary School Business Programs," *Curriculum Development in Education for Business*, Fifteenth Yearbook of the National Business Education Association (Reston, Virginia: National Business Education Association, 1977), p. 109.

[10] Policies Commission for Business and Economic Education, "This We Believe About the Expanding Leadership and Planning Role of the Business Educator in General Education," *Business Education Forum*, May, 1971, pp. 6-7.

Summary

Justifying the existence of business education in the American educational system is an easy task, for it is succeeding in its mission of planning and implementing programs that develop necessary competencies for youth and adults. To the extent that it accepts new challenges as they arise and deals with them effectively, its future—and that of its students—will be secure.

Business education in the American high school will continue to have a vocational emphasis. With proper regard for the importance of education both for earning a living and for using one's financial resources wisely, the dual objectives of high school business education programs will be maintained in the decade of the 80's.

The community college will continue to be a multipurpose institution attempting to serve multiple needs of a society which has seen radical changes since 1960. The basic philosophy of the community college will continue to be that the institution should be attuned to the community it serves so that its programs are integrally bound up with the needs of that community.

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[11] Opinion expressed by Kennth B. Hoyt in an address ("Career Education in the Community College: An Evolving Concept") at the 57th Annual Convention of the American Association of Community and Junior Colleges, Denver, Colorado. April 19, 1977.

FACTORS AND FORCES INFLUENCING BUSINESS EDUCATION IN THE FUTURE AND STRATEGIES FOR COPING WITH EXPECTED CHANGES

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FACTORS AND FORCES INFLUENCING BUSINESS EDUCATION IN THE FUTURE AND STRATEGIES FOR COPING WITH EXPECTED CHANGES

EQUALITY OF EDUCATIONAL OPPORTUNITY
- Students with academic deficiencies
- Students with low levels of motivation
- Students with inadequate social skills and limited knowledge of social adjustment techniques
- Students with limited English-speaking ability
- Students with cultural differences, requiring special attention to educational deficiencies and learning problems resulting from these cultural differences
- Students with physical handicaps with varying mental abilities and with emotional problems

ATTITUDES AND VALUES CLARIFICATION

BACK TO THE BASICS MOVEMENT

INCREASING RECOGNITION OF THE PROBLEM OF SCARCITY IN THE WORLD'S PRODUCTIVE RESOURCES

INCREASING PROBLEMS IN FINANCING SCHOOL PROGRAMS

CHANGING FAMILY STRUCTURES

ECONOMIC COMPETENCY OF ALL CITIZENS

NEW TECHNOLOGY

INCREASING NEED FOR ADULT AND CONTINUING EDUCATION

INCREASED COMMUNITY INVOLVEMENT IN SCHOOLS AND IN THE EDUCATION OF YOUTH

ACCOUNTABILITY AND COMPETENCY BASED EDUCATION

SUMMARY

FACTORS AND FORCES INFLUENCING BUSINESS EDUCATION IN THE FUTURE AND STRATEGIES FOR COPING WITH EXPECTED CHANGES

Many social, economic, and political forces have influenced business education and *all* of education in the past. Within the past seventy-five years, major forces operating within the educational picture have included: entry of women into the world of work, the Great Depression, scarcity of business workers during World War II, launching of Sputnik, economic recession and unemployment in the 1950's and 1960's, increase in educational funds from the Federal Government, disenchantment of the general public with benefits derived from schooling, inflation, and resistance to higher taxes.

Some of the changes that educators can expect to encounter in the future, together with suggested strategies for business teachers to employ in coping with these changes, are described in the following paragraphs.

Equality of Educational Opportunity

The move to guarantee equal educational opportunity for all youth in the United States has been gaining momentum for a quarter of a century. Court decisions during this time have defined in detail the need to structure educational institutions and programs in such a way that there is no discrimination because of race; economic, language or cultural background; religion; sex; or handicaps of various types.

Mounting evidence supports the integration of student populations with various racial, language, and cultural differences. The emphasis on integration of student populations will require that business educators design programs and courses for students with many different characteristics.

1. **Students with academic deficiences.** Business teachers in all classes will need to include instruction in how to study, how to solve problems, and in such basic skills as reading, writing, computation, and spelling. Reading skill is so essential to future educational progress that business teachers should devise some specific techniques for helping students increase their reading competencies. Techniques that business teachers might use include reading aloud in class each day, reading for ideas under topical headings, reading paragraphs followed by oral summaries, written outlines of readings, reading and following instructions in performance of a task, and selecting vocabulary words for specific study.

2. **Students with low levels of motivation.** Providing programs and courses that have meaning and significance for students who have little motivation for learning will continue to be a challenge. Some possible strategies include:

   a. Designing learning experiences that simulate real life situations
   b. Making the transfer values of school experiences apparent to the learner
   c. Using various types of media to which young people's lives are already geared, such as television, films, records, tapes, and radio
   d. Making a learning laboratory of the community by implementing expanded work programs and by providing for field excursions, secretary-for-a-day programs, career investigations, consumer practice surveys, interviews with business people, and guest speakers.

These techniques capitalize on the knowledge that young people have acquired outside of school, inject realism into school experiences, and enable teachers to compete with other influences for the attention of students.

3. **Students with inadequate social skills and limited knowledge of social adjustment techniques.** The development and refinement of social adjustment techniques will continue to be a problem for young people, and business teachers will be expected to help students develop appropriate social skills.

Success in business is highly dependent upon good human relations, and business teachers have many opportunities to help young people refine their human relations skills and attitudes. Such personal qualities as promptness, dependability, thoroughness, and persistence are essential in any job and teachers should expect these qualities in classroom performance as well. The qualities that enable one to get along well with other people can be developed and refined through the use of cooperative vocational education programs, case problems, speakers from business, in-basket exercises, telephone practice, videotaping and critiquing, role playing, etc. The business teacher's examples of such qualities as courtesy, optimism, fairness, good humor, respect for others, and kindness make a large contribution to the development of appropriate human relations.

4. **Students with limited English-speaking ability.** The ability to speak more than one language will be an asset to business teachers in the future. Students who are unable to understand and/or speak the English language sufficiently to make ordinary progress in school should be referred to special programs in which the students' native languages are used. If these special bilingual programs are not available, each student becomes a "special needs" student for whom a special series of tasks must be created.

Students with limited English-speaking ability in vocational education programs have the same ultimate goal as their English-speaking counterparts—acquisition of marketable skills—but they possess certain unique needs. For example, some of these students need English language skills related to vocational education. Others, including refugees, may need orientation to the dominant culture. Some have a need to upgrade basic skills; and many of these persons need greater motivation and higher self-esteem if they are to stay in school.

The Bilingual Vocational Education (BVE) Project in Arlington Heights[1] is an example of efforts in Illinois to meet the special needs of persons with limited English-speaking ability. Local districts will find a number of services available from the BVE Project. Vocational teachers and administrators should consult a 1979 publication of the Project entitled *Vocational Education for the Limited English-Speaking: A Handbook for Administrators.*[2]

5. **Students with cultural differences, requiring special attention to educational deficiences and learning problems resulting from these cultural differences.** Business teachers will need to help students upgrade basic skills, build confidence, experience satisfaction from quality performance, acquire social skills and social adjustment techniques, develop motivation to achieve in-school tasks, and develop qualities of promptness and regular attendance.

6. **Students with physical handicaps, with varying mental abilities, and with emotional problems.** Business educators at all levels will need to design instructional strategies and to modify programs and courses to meet the needs of handicapped and disadvantaged students. Involvement of special needs students in regular business education, or "mainstreaming," (see "Mainstreaming" section of this publication) is required by the Education for All Handicapped Children Act (Public Law No. 94-142). This act mandates a free, appropriate education for all handicapped children within the least restrictive environment. Handicapped children are defined as those who are mentally retarded, speech impaired, visually handicapped, hearing impaired, seriously emotionally disturbed, orthopedically impaired, or who have other health impairments and specific learning disabilities.

The state of Illinois must have a plan for "mainstreaming," and this plan must be approved by the Federal Government. In addition, each local school district must have a plan that meets state and federal guidelines and is monitored by the state.

To meet federal guidelines, an Individualized Education Program must be designed for each "special needs" student. These "special needs" students will be enrolled in regular classes with increasing frequency, and each student must be the recipient of a carefully designed individualized set of tasks. Techniques to help structure the task assignments include: learning packets, learning modules, and job instruction sheets; audio-tutorial; audio-visual tutorial; assignment sheets; partial, or reduced, assignments; extra-time allocations and extended deadlines; individualized performance standards; special formats for textbooks; and others.

Business educators should be able to design a wide variety of business education programs to meet the needs of students with many different characteristics. By working closely with special education personnel and administrators, teachers can provide a learning atmosphere that will enable the handicapped to learn and to be employable.

Attitudes and Values Clarification

Major changes are taking place in the institutions of society and in cultural traditions. Identification and development of appropriate attitudes and values have accordingly become serious, complex problems. Changing family structures, changing views toward work and the world of work, changing views regarding the role of business in society, court rulings that tend toward increased democratization of society, increased tolerance for resistance to customs and mores, and many other forces help to create an environment in which the formation of values and attitudes is a long and difficult process. Increasingly, the attitudes (and perhaps even the value structures) of young people will reflect the constant changes occurring in society, and attitudes may mature at a later age than has been true in the past.

Business teachers will need to seize opportunities to help the young clarify values and develop appropriate attitudes. A number of values clarification exercises have been devised, and these exercises can help young people identify their beliefs and express their opinions. These exercises include: the use of preference charting (do you prefer to be with a good friend, be at a large party, or be at home?); taking stands on issues by a thumbs-up or thumbs-down expression; completion of an idea (if I were to inherit $5,000, I would..., or What I would most like to do is...); written or oral descriptions of attributes that you most admire in others. Appendix B is an example of a values exercise.

Role playing, case problems, cooperative vocational education programs, personality inventories, interest inventories, and self-analysis exercises are other techniques to be used in attitude development.

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[1] Bilingual Vocational Education Project, 500 South Dwyer Avenue, Arlington Heights, IL 60005

[2] *Vocational Education for the Limited English-Speaking: A Handbook for Administrators* (Springfield, IL: Illinois Office of Education, Department of Adult, Vocational and Technical Education, 1979), pp. 1-2.

Back to the Basics Movement

In recent years there has been a move back to the basics in educational institutions throughout the United States. American College Testing Program (ACT) and Scholastic Aptitude Testing Program (SAT) results show that students have disappointingly low scores in the areas of English, reading, and arithmetic. Institutions of higher learning are complaining that students need developmental courses in these same areas prior to being enrolled in regular degree curricula.

The University of Texas, along with the Bureau of Adult and Vocational Education, conducted the Adult Performance Level (APL) Project in 1975. They studied a random sample of the adult population of the United States to determine the population's ability to use basic skills and knowledges with the functional competence needed for meeting the requirements of adult daily living. These competencies, identified as survival literacy, functional literacy, and coping skills, were divided into five general knowledge areas: consumer economics, occupational knowledge, health, community resources, and government and law. The basic skills areas were listed as reading, writing, speaking and listening, computation, and problem-solving.

Almost 30 percent of the population fall into the lowest level (APL 1 or less than eighth grade level of competence) in consumer economics. This means that 34.7 million American adults function with difficulty in coping with the basic requirements that are related to consumer economics. Over half of the population falls in the upper level (APL 3) in this area. One out of every five adults in the United States functions with difficulty (APL 1), or is unable to perform correctly, on occupationally related performance indicators concerned with occupational knowledge.

Approximately one third of the population functions with difficulty (APL 1) and a little over one fourth are functional (APL 2) but not proficient in task performance on items requiring mathematical manipulation.

The area of greatest competency in comparison with other skills is in writing. However, even though almost three fifths of the population performed adequately on tasks requiring writing skills, two fifths of the adults in the United States are unable to cope successfully.

As a result of the APL study, several states have been active in developing competency based education programs funded by both the federal and state governments. California and Texas were pioneers in the area, and Illinois has recently participated in a number of adult education projects in an effort to improve performance levels.

Action has also been taken in a number of states and in a number of communities in Illinois to establish basic skill competency levels for promotion from one grade to another and for graduation from the public schools.

All of the basic skills are required to a great extent in the courses which prepare students for occupations related to business education. Business educators must recognize that they may need to help students with their basic skills in order to teach them business education materials. For example, a business educator may need to teach a student some mathematics before the student can be taught how to balance a checkbook. The business educator may need to develop lower level training materials than those which are being used in the classroom for the more advanced students.

The implications are clear also that the makeup of the student population will change. Not only will there be children in grades kindergarten through twelve, but adults who dropped out of school at an early age may return to school in order to become functionally literate. There is also a move to train individuals who are in penal institutions and individuals who are handicapped either physically or mentally. This requires that materials be written which will be interesting and relevant to those populations.

Business education should play an important role in developing the basic skills in consumer economics, law, and occupational knowledge. Business education teachers are well qualified to be leaders in these areas and should accept the challenge to educate the population of the United States to a point of functional literacy.

Increasing Recognition of the Problem of Scarcity in the World's Productive Resources

The rate of increase in the population of the world gives rise to the prediction that productive resources may be exhausted in the foreseeable future. This situation, as it exists in the world, exists also in the United States and in Illinois. The need to economize in the use of all resources is clear.

Business teachers should emphasize economy and conservation, as in the use of office supplies. In addition, they will need to provide opportunities for students to practice making economic decisions when faced with situations of unlimited demands and limited resources. In business classes, teachers should discuss such basic economic principles as the problem of scarcity, the consequences of choices and decisions in the marketplace, opportunity costs, and monetary and fiscal policy. The concepts of conservation and economizing will need special attention in the future and should be incorporated overtly as well as covertly into the classroom atmosphere. This implies a greater burden on the teacher, not only to expound these virtues, but to set an example by conduct and general attitude.

Increasing Problems in Financing School Programs

The system of financing education in America has been subjected to increasing strain and criticism in recent years. Public and higher education experienced explosive growth in the 1960's, both from the standpoint of student enrollment and funds expended. During this ten-year period, enrollment grew by 30 percent, while spending on elementary and secondary education grew at an annual rate of 10 percent. The college and university picture during this same decade showed a 2 to 3 ratio of matriculation increase. By 1970 this exhilirating rate of expansion began to slow, bringing about major questions concerning the equity and adequacy of the American system of educational finance.

Financing and control of education in the United States is different from that of other highly developed countries because it is not centrally administered. At the precollegiate level each of the fifty states has authority to establish its own schools and, with the exception of Hawaii, each has delegated the operation of the schools to local school districts. Financing of this system is shared among local, state, and federal governments. In the case of higher education, governmental support is supplemented by tuition, endowment income, and private donations.

Public education is by far the largest activity of state and local government, consuming more than $57 billion annually, nearly a third of all state and local expenditures. Approximately 16,000 local school districts operate 87,000 schools, employ approximately two and one-half million teachers and other staff, and enroll some 45 million pupils.

Half of the funds for the support of public elementary and secondary schools comes from local property taxes. State governments contribute an average of about 44 percent of school revenues through a bewildering variety of state aid mechanisms intended to supplement and, to some extent, equalize educational expenditures. Only a small percent of public school support comes from the federal government.

As the social conscience of the populous has developed, the system of financing public schools has come to be recognized as inequitable because of the grossly unequal distribution of local property wealth. School districts with high property valuations are able to spend generously on public education. Districts with low valuations have less to spend even with above average tax rates. Attempts to equalize school funding through state aid programs are not always a complete success.

Recent figures show that statewide per pupil expenditures ranged from a low of $838 in Mississippi to a high of $2,005 in New York. Such disparities in educational funding both among and within states suggest that equal educational opportunity in the United States is a goal yet to be achieved.

Whether the U. S. system of public and higher education is adequately financed has always been a question of intense public debate, but the debate is even more pronounced in times of turbulence within the overall economic system. Pressures from inflation and recession strain the processes by which society's scarce resources are rationed among competing demands for public services.

The financial problems of colleges and universities are different in kind but equally as serious as those of the public schools. In addition to rising costs, colleges and universities are now confronting an era of little or no growth. Because of declining birth rates, public school enrollment peaked in the early 1970's and has been dropping since. The decline has resulted in the closing of some schools, cutbacks in hiring of new teachers, and increased community resistance to school budget increases. This trend may reverse as actual net births soar by 1990.

Arrangements for financing public education have been under intense scrutiny since the mid-1960's. Events and circumstances which are bringing about change include the:

1. Growing body of opinion that the amount of money spent on a pupil should not depend upon the wealth of the school district in which the person lives.
2. Civil rights movement of the 1960's speaking for the poor and minorities who complained that public schools failed to help their constituencies achieve social and economic equality with the rest of the population.
3. Flight of the middle class from the cities, leaving behind an eroding tax base and population made up increasingly of the poor, minorities, and the elderly.
4. Growing public disaffection with increasing property taxes, which by the early 1970's had reached a point where three out of five bond issues for increased school spending were being defeated at the polls. Faced with a growing property taxpayer's revolt, local school districts began looking to the states for increased school aid.

Additional financing is needed at all levels: elementary, secondary and higher education, but it must be combined with other elements of policy and planning to guarantee educational quality and equality. Educational reform thus goes beyond the questions of financial equity and adequacy to even more difficult problems such as educational quality, diversity, and efficiency. The search for answers on all these issues will require the continuing efforts and best thought of many individuals and institutions in the decades ahead.

Business teachers are likely to be forced to work under increasing budget restraints, which may require teachers to create their own instructional materials and teaching aids. Because of the difficulty of getting community support for school finances, public relations between school and community will be increasingly important. Business teachers can help public relations efforts by participating in community activities, seeking the cooperation of parents in planning their children's educational programs, working with advisory committees, using the business community as an educational laboratory, and keeping the community informed of the value of business courses.

Changing Family Structures

The population in the United States is expected to increase to nearly 243 million by 1990. Although birth rates will probably be lower, it is expected that there will be an increase in the number of women in their childbearing years. Births at present are approximately 3.3 million a year; births by 1990 are expected to be close to 4 million. It is anticipated that within ten years the number of persons 65 years of age or older will increase by about 20 percent. With the changes in the compulsory retirement laws, many of these individuals probably will be remaining in the work force after age 65. They may need to be retrained into occupations which are not so strenuous as those pursued in earlier years.

Statistics indicate that the average number of years of schooling for a U. S. citizen is increasing. Therefore, in some homes, both the parents and the children may be pursuing educational objectives. In some cases, the children will be staying in school for longer periods of time, and the parents will be leaving the home to participate in high school programs (if they have not graduated) or attend community colleges or four-year colleges and universities.

With the postwar baby boom children moving into the 25 to 40 age bracket, the average age of the adults in the home will be increasing. Also, even though planned parenthood has decreased the number of births on an annual basis, the number of teenage pregnancies has increased. Many of these girls remain unmarried, live within their original family structure, and stay in school to complete their high school education.

The population of the United States is on the move. Over one third of the population 5 years of age and older moved to other states in the 1970's and the trend will continue through the 1980's.

The total work force is expected to increase to approximately 120 million by 1990. There will be fewer young workers (ages 16 to 24) throughout the 1980's. Women, both unmarried and married, are continuing to move into jobs in great numbers. Approximately one-half of all wives are presently in the labor force. By 1990 it is predicted that approximately 70 percent of women aged 25-44 will be working. They will hold more of the jobs, and they also will occupy more "top" jobs than they do now. It is expected that within 25 years women will occupy 10 percent of the chief executive posts of the "Fortune 500" firms.

The present-day roles of women encompass a wide range of jobs and responsibilities. The relatively open employment market for women creates a need for business educators to encourage female students to enter employment fields that traditionally have been populated largely by males, such as accounting, business management, computer programming, sales, etc. Likewise, males should be encouraged to enter employment fields such as clerical and secretarial. In addition, post-secondary business education departments need to devise a sequence of courses that permits adult graduates to enter directly into office administration positions or to progress through clerical and secretarial positions into office administration.

Coping with declining enrollments, due largely to declining birth rates, is a serious challenge for business educators. Business educators will need to use strong persuasive tactics to keep advanced courses which often have low enrollments. Sometimes schools will be able to offer advanced courses by combining advanced shorthand and secretarial office procedures or advanced typewriting and clerical office procedures. It may be necessary to transport advanced students to area vocational centers. Where there is no area vocational center, schools may need to form joint agreements with neighboring schools or utilize Community College programs to secure the needed training for students to develop employable skills. In any event, it is necessary to make courses beyond the introductory level available to prospective office workers.

With the increased number of pregnancies among teenagers, there should be a program to help these students make realistic decisions concerning their careers. Although some of them may have pursued the college preparation core of courses, they may be likely to seek jobs in business. They may require curricula that are specialized enough to train them quickly for jobs. Business teachers will need to work closely with business, industry, labor, government and advisory committees to determine minimum competencies for jobs in which these students have an interest.

Retraining the older individuals—60 years of age and older—requires special teaching methods. These individuals may be attracted to jobs which require less physical exertion, such as clerical or accounting positions. Older students often bring into classes a wealth of experiences which can be used to supplement and enrich the materials for the younger, inexperienced students. The business teacher will need to present to these students relevant materials that include new information and help develop new skills. Redundancies must be kept to a minimum. It is especially important to appeal to as many senses as possible when dealing with older students. Some of them, believing that they are too old to learn new things or even to be in school, will need to hear frequent words of encouragement from the teachers.

Business teachers need to look upon their courses and teaching materials as those for individuals rather than specifically for males or females. There will be a trend for males to take more traditionally female classes and for more females to take more traditionally male classes. As the salaries of secretaries increase, so will the number of males in the secretarial field.

Females and males will need to have counseling and testing to help them with their values clarifications and to pick realistic career choices according to their abilities, aptitudes, and preferred lifestyles. As openings occur in businesses, affirmative action will require that more management/staff positions be filled by qualified women.

Business educators should provide for career-based experiences in business education, particularly for those people who have just started to make career decisions and for those who are returning to school. Schools will need to offer more advanced programs (in management and accounting, for example), and Certified Professional Secretary (CPS) and Certified Public Accountant (CPA) reviews for those who seek professional certification.

As families become increasingly mobile, business teachers will need to know the competencies required for employment in different sections of the country so that they can prepare their students for employment in various geographic regions.

Economic Competency of All Citizens

The level of economic competence is slowly rising in the United States. Most government activities are economic in nature, which may be a factor in improved economic understandings of the general population. Many government activities are concerned with taxation and tax policies, with wages and prices, and with services provided by governmental agencies. A large number of citizens keep up with these activities through the daily newspapers and through reports on television.

Business educators have a responsibility to promote economic education in the schools. In addition, economic education should be stressed in such courses as general business, consumer economics, business management, marketing, and accounting.

The broad topics of international trade, scarcity and environmental concerns will need careful attention by the business educator as they become increasingly important.

New Technology

The increased utilization of information/word processing equipment requires that business education departments help students acquire word processing skills and knowledges as preparation for entry into office jobs. To develop familiarity with equipment that the schools cannot afford to buy, field excursions to information/word processing installations are essential. In all business classes, and especially in office occupations classes, students must be provided opportunities to gain high levels of competence in spelling, punctuation, capitalization, number usage, and rules of grammar. Special assignments and special drills on these elements of English should be provided at frequent intervals in business classes.

The computer is a part of everyday life. Introduction to data processing and computer programming are important subject matter areas for business students, particularly at the community college level. Instruction in data processing should include some hands-on experiences in preparing input data and in interpreting printouts. In high schools that are unable to own or rent appropriate data processing equipment students may be encouraged to enroll in data processing and computer programming courses in area vocational centers. All business students in community college programs should be urged to become familiar with data processing and computer programming.

Increasing Need for Adult and Continuing Education

A number of government agencies and research analysts have suggested trends in population, labor force, and education which have implications for adult and continuing education in the future:

1. The labor force is expected to increase through 1985. Increases in the labor force generally are accompanied by increased need for adult and continuing education.
2. A major shift is expected in the age composition of the labor force. The postwar "baby boom" members of the labor force will make up the ranks of workers 20-35 years of age through 1985, making this the largest group in the labor force.
3. Approximately 5.2 million job openings will arise annually through the mid-1980's because of employment growth and the need to replace workers who leave the labor force due to retirement or deaths. Some occupations in which projections indicate a need for 100,000 or more additional workers are:

Bookkeeping workers	121,000
Secretaries, stenographers	429,000
Salesworkers, retail	190,000
Typists	125,000[3]

4. Eight million more women will be in the labor force in 1985 than in 1972. The women in the labor force in 1985 will have had more years of schooling. The increase in supply of women college graduates will coincide with an expected slowdown in the growth in demand for elementary and secondary school teachers—occupa-

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[3] U. S., Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Handbook* (1976-77 ed.; Washington: Government Printing Office, 1976), pp. 9-15.

tions in which a large proportion of college women have been employed in the past.[4]

5. Students are graduating and entering the adult population with lower levels of basic skills.
6. Individuals in the work force can be expected to change occupations on the average of five times during a lifetime.

An increased need can be anticipated for adult and continuing education in the areas of secretarial, clerical, and accounting occupations, and for new jobs created by technology.

Because of the shifts in occupations, there will be a great need for adults to retrain through continuing education curricula in business education.

Because of the increased number of women in the work force, there will be a need to analyze the aptitudes, abilities, and interests of women and to train them for the business occupations in which they are interested.

Increased Community Involvement in Schools and in the Education of Youth

The use of the community as a learning laboratory creates a special kind of motivation for students and is highly recommended as a teaching-learning strategy. Business teachers have many opportunities to use the community as a part of the instructional program in business education.

Guest speakers from the community add a great deal of realism to a learning situation. An alternative is the Telexplorer, available from one of the Career Guidance Centers (See Appendix D). General business and consumer education topics for which guest speakers are most effective include: banking and banking services; financial counseling; selecting and buying clothing; buying a used car; leasing an apartment or a house; local tax revenue and expenditures; insurance; income tax preparation; and consumer credit.

For office education classes personnel directors from local business firms are excellent resource persons for conducting mock interviews. Personnel directors also will speak to office education students on such topics as grooming, appearance, work habits, attitudes of workers, and the like.

Interviews in the local community with businesspeople, government officials, consumer agencies, and professional people can help develop a better understanding of the goals and services of each group and can be a help in maintaining communication between the school and the community.

Cooperative vocational education programs in the local community are highly recommended as a means of community-school cooperation and involvement. Other types of work experiences also can be arranged in local businesses. Students in advanced typing classes, for example, could benefit greatly by working in office positions for part of their instructional time. Released time from school could be arranged, and placements in business offices for periods of time of one to three weeks could be found in the community. The same types of arrangements could be made for advanced shorthand, office procedures, marketing and distributive education, business management, etc. These informal programs can be of great value to students who do not always see the transfer value or relevancy of regular classroom instruction and requirements and can also provide training on equipment not available in local schools.

Another type of experience that merits consideration is the secretary-for-a-day, business-executive-for-a-day, salesperson-for-a-day, and the like. If longer periods of time are not available, one-day experiences in businesses and industries can be of value to students.

In many instances, persons from the community can teach adult and evening classes. Students often can benefit from instruction by persons who are actually working in the subject they are teaching. Care must be exercised, however, to make sure that high-quality instruction is being given. Possession of knowledge is not the only qualification for teaching. Instructional methodology is very important, and students soon learn to avoid classes in which the instruction is poor.

The community can serve as a useful source of business forms and materials that workers use on the job. Business teachers need to make arrangements with business firms in the community to supply these forms and materials. The contacts represent good public relations, and the transfer value to actual job situations is very high.

Advisory committees need to be established for a number of components of the business program. The cooperative vocational education courses generally will have advisory committees; but such committees can also be useful for the data processing, secretarial and clerical, word processing, accounting, and business management programs.

The community should be utilized by the school as much as possible in carrying out an educational program, and community persons should be involved in school activities to a much greater extent than has been true in the past.

Accountability and Competency Based Education

Increasingly, educators and educational institutions must be accountable for the funds spent and the resources made available to them. A number of developments have caused the accountability drive to gain momentum.

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[4] U. S., Department of Labor, Women's Bureau, *1975 Handbook on Women Workers* (Washington: Government Printing Office, 1976), p. 241.

1. American College Testing Program (ACT), Scholastic Aptitude Testing Program (SAT), and Iowa Tests of Educational Development (ITED) scores show that school-age children continue to fall below the established national norms on standardized test.
2. The Texas Adult Performance Level (APL) Project results indicated that over one-fourth of the U. S. population have less than an eighth grade competency level in consumer economics, government and law, problem solving, and computation. The overall competency level for all areas covered in the APL Project indicated that 19.7 percent of the population functioned at less than the eighth grade level or were considered adults who function with difficulty.
3. Unemployment statistics in the United States have prompted many persons to ask whether students are being trained for jobs that are not available.
4. Shifts in work force needs, technological advancements and changes, and governmental regulations are stimulating industry to demand more technical knowledge and higher levels of basic skill development in the educational background of prospective employees. Industry is demanding that educational institutions do a better job of training individuals to meet the requirements of employment. If schools do not adequately prepare students for employment, industry will train the individuals to meet its need or will ask the Department of Labor to help through the Comprehensive Employment Training Act (CETA) and other federal programs.

The drive for accountability has prompted educational institutions to seek efficient methods for meeting the demands. Competency based education (CBE) is an effective means of proving accountability. When desired competency levels are stated prior to an educational experience, the responsibility for attaining those competency levels is shared by the educational institutions, the educator, and the student.

CBE can be used to set requirements for graduation or for promotion from one grade to another; it can be used to set objectives for specific educational programs, individual courses, or specific units within courses.

Opponents charge that CBE stifles creativity and intellectual development by presenting only a few tasks to meet the objectives. Creative teachers will be able to determine whether certain tasks are helping students to reach the competencies stated. New activities which will be interesting and relevant to the population being served may need to be developed. As technology changes and the student population changes, new techniques and areas of training may need to be developed.

Business educators are faced with the responsibility for training a large number of students to fill the openings in the labor market in the future. It is predicted that over 429,000 secretaries will be needed to replace those who die or retire and to meet the growth of the 1980's. The demand for accountants, clerks, typists, data processors, and salespersons is also expected to grow throughout the decade. Business teachers will be held accountable to industry and to students for developing materials that are effective in training students to perform at the competency levels required by business and industry. Business, industry, labor, government, and educators must work together to establish realistic competencies and to develop relevant teaching materials for programs, courses, and modules. If students are to acquire these competencies, business education teachers probably will need to develop materials for training and practice in the use of such basic skills as math, spelling, grammar, and reading. For instance, a student who has difficulty with reading will have problems comprehending the texts used in any business education course.

As the technology of business and industry changes, the competency requirements will change also. Business educators have a responsibility to read widely in professional and trade journals, and to attend conferences, workshops, and in-service training programs to keep up-to-date. When teachers have been accountable to the extent that the students have developed the competencies required for successful entry and retention in the labor market, there will be little chance for criticisms that educational institutions have encountered in the past.

An excerpt from a competency based education module prepared for an Illinois State Board of Education project is presented on page 14. It is presented to illustrate the parts of a CBE module and how the parts should be written.

Summary

The forces that will shape business education in the future will be different from many of the forces that have been influential in the past. Business teachers need to be alert to the changes that occur in education, no matter how subtle and cautious these changes may seem, and adapt the business education programs whenever necessary to insure that they are realistic and meaningful for students. The changing characteristics of the learners in the future will serve as the basis for needed changes and modifications in the business education programs. The most effective business education programs in the future will be those that keep up with the changes in learners, in the total education field, and in the community in which the educational institutions are located.

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Sample Module[5]

Instructional Objective: When asked how to establish and maintain credibility, the learner will list ways to establish and maintain credibility with clients, co-workers, employees, and manager.

What Does the Competent Marketing Employee Do?	Suggested Learning Activities
Establish and maintain credibility with clients, co-workers, employees, and managers	Have students look up the definition of credibility. Students should then prepare a list of ways in which an employee can establish and maintain credibility with clients, co-workers, employees, and managers.
	Ask students to collect ads in which they feel the sponsors have used techniques that establish credence.
	Business firms would like to employ credible employees. Assume that you are a personnel director for a large TV station. You will be interviewing individuals seeking a position as a sales rep. What evidence will you seek to determine if a candidate will be a credible employee?

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[5] Wray, Ralph D., *Advertising Service -A Suggested Curriculum Guide*. Springfield, Illinois: Illinois Department of Adult, Vocational and Technical Education, State Board 1979, Section 4, p. AS-24.

PSYCHOLOGICAL PRINCIPLES OF LEARNING IN THE BUSINESS EDUCATION CURRICULUM

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PSYCHOLOGICAL PRINCIPLES OF LEARNING IN THE BUSINESS EDUCATION CURRICULUM SELECTED

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Preface

Due to increased emphasis on accountability and the mainstreaming of students, it is becoming increasingly important that teachers better understand how individuals learn. As a result, the Publications Committee felt it very important to include the following chapter. During the 80's, the ability to meet the learning needs of each student will continue to gain in importance.

PSYCHOLOGICAL PRINCIPLES OF LEARNING IN THE BUSINESS EDUCATION CURRICULUM SELECTED

Introduction

The correlation between what the teacher does in the classroom and how much the student learns as a result of this teacher behavior is not as high as educators would like it to be. Presumably, the interactions between teacher and students are examples of some theory of teaching; such a theory is assumed to be well-grounded in a theory of learning. Of course, there is no single theory of learning which can be applied universally and in every setting where students and a teacher exist. Neither is there a single theory of teaching which can be taught to prospective teachers. In fact, the arguments about whether teaching is an art or a science still flourish.

Should teachers then ignore everything that has been written concerning the way people learn and simply do what they think is best in the classroom setting? To admit that this is a reasonable suggestion or even to advocate its usage would be tantamount to complete support of the notion that teaching is, after all, an art, and there is nothing regular or predictive about the relationship between teaching and learning. Teacher educators would prefer to admit that there is some art to teaching, but there is also a scientific basis which should form the frame of reference from which the teacher goes about the business of teaching students.

This frame of reference is one which assumes some basic knowledge of the learning process. This does not mean that a teacher should be able to articulate a theory of learning to which he/she subscribes, but rather be able to teach according to some basic principles that have been shown to be important in learning. These principles are applicable in any situation, including learning in cognitive, affective, and psychomotor areas. The principles apply also to the learning of content as well as skill subjects.

This set of principles or tenets are those usually taught in an undergraduate educational psychology course. Such a course normally addresses at least six basic areas of learning about which teachers should be concerned when preparing to teach. These tenets will form a background for later discussion concerning different student characteristics and the teaching of business "content" and "skill" subjects.

The Learning Principles

The learning principles which will be addressed are sometimes best stated in the form of questions which follow each principle. These learning "rules" have been well established for some time and can be found in almost any text which treats theories and/or applications of learning. What follows is based on material found in Hilgard and Bower.[1]

Principle 1. Limits of Learning. What is meant by capacity to learn? Do all students in all classes have the same success in learning a particular concept or skill? Who can learn what? What does it mean when one speaks of individual differences?

Principle 2. Practice. Do students learn a skill or concept immediately or do they have to work at it over time? Does improvement depend directly on the amount of practice? What are the most favorable conditions of practice? Can mere repetition be harmful in learning certain concepts or skills?

Principle 3. Reinforcement. Do students differ in how much they seem to want to learn? What is intrinsic and extrinsic motivation? Is learning affected by having a reward or punishment attached to it? Are the consequences of reward and punishment the same, only opposite in effect?

Principle 4. Understanding and Insight. How important is it for students to understand what they learn? Can learning be accomplished by rote memory? Is there a difference in how concepts as opposed to skills are learned? Can some skills be memorized while other need to be understood before they are learned?

Principle 5. Transfer. If students learn a particular concept or skill, does it help them learn another concept or skill? Are there only certain situations under which transfer takes place? What is the exact nature of transfer? Does learning one thing hinder the learning of something else?

Principle 6. Remembering and Forgetting. How well do students remember a concept or skill? Are some concepts and skills more difficult to remember than others? What causes students to forget?

The above six principles are those often associated with how people learn. The questions following each principle are seldom answered in the same way by learning theorists, and some theories place more emphasis on certain principles than others. The purpose here is not to review each of several learning theories to determine which one or ones best fit the description of some optimal way of teaching a business curriculum concept or skill. Rather, the goal is to discuss the teaching of business curricula with the above questions as a guide in such a discussion.

Teachers and The Learning Principles

It is rare that a practicing teacher can articulate all of the above six general principles. In fact, if one were to ask a teacher how his or her students learn a concept or skill, the most probable response would be one which detailed what the *teacher* did, and not especially how the students learned. Once teachers are allowed to engage in conversation about what happens in their classrooms, one gets a full account of all the rich constructs and occurrences of classroom life. The fact that teachers do not generally talk in terms of reinforcement, understanding, remembering or any other learning term, does not necessarily mean that these learning concepts are not salient to them. Teachers might not use such terms as a part of their vocabulary.

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[1] Ernest R. Hilgard and Gordon H. Bower, *Theories of Learning* (4th ed.; New York: Appleton-Century-Crofts, 1975).

Their idea of learning is often unanalyzed; it remains a unitary if rather vague notion that lacks the differentiation and subconcepts that form parts of any basic learning theory. To many teachers the learning theory approach or point of view represents an abstraction of reality. They see their classrooms as not only real but also, in fact, a pressing reality. Another difference is that the time frame for the learning theorist is more or less indefinite and can easily shift from a day to a week, month, or year. On the other hand, the teacher's time frame is much more definite and tends to be, on the average, very short—from hour to hour or from day to day. Teachers usually look at "now" or "tomorrow" because they are facing groups of students who cannot be left unoccupied very long. The latter fact forces teachers to provide almost continuous activities for potential learners.

Thus, while it is relatively easy for the educational psychologist to identify instances of motivation, practice, reinforcement, etc., as they occur in classroom life, the sheer moment-to-moment nature of teaching almost precludes a high amount of conceptualizing about learning principles on the part of the teacher. On the other hand, it is possible to address these principles in a way that "makes sense" to teachers and in a manner which will be helpful to them as they think about the best methods to teach a business concept or skill.

Students and The Learning Principles

Often students are able to discuss how they learn. They can detail the differential effects of reinforcement, the impact of different learning rates among their peers, and the harmful effects (in some instances) of practice. Remembering and forgetting are also more a part of their vocabulary although they may not be able to determine just how and why remembering and forgetting occur. Generally, they can talk about what conditions are most favorable to them for learning and can quite readily address the connection—or lack of connection—between learning one concept or skill and another.

But, it is also true that students rarely think about "studenting." Many see their basic task as finding out just how their teachers test, what their teachers reward and what they punish, and when the most opportune moment exists for asking or answering questions. They are really quite good at reading and responding to non-verbal and verbal cues from their teachers. In short, students spend much of their time in classrooms learning the rules of the classroom game. Those who play according to the rules win; the ones who don't know the rules or don't abide by them rarely come out ahead, or seldom learn. We would anticipate that the rules of the classroom game will make more sense if such rules reflect some basic learning principles. If that is true, all students will be better able to play this classroom game.

Summary

The above is meant as a general introduction about how best to approach the teaching of subject areas in the business education curriculum. Knowledge and understanding of the six learning principles should (a) help teachers understand the different rates at which students learn, (b) suggest how best to interact with students who have differing attitudes and aptitudes, and (c) provide some methods or strategies which enhance student learning.

Teaching is certainly a difficult enterprise. However, if teachers can be shown enough instances in which learning principles apply to the general subject areas referred to earlier, perhaps these principles can be effectively internalized by business education teachers. This internalization should result in a more effective and efficient classroom environment—a situation where teachers teach and students learn and where all participants in this process gain a good deal of personal satisfaction. As an important by-product, there should exist a clearer relationship between teaching and learning.

Psychological Principles of Learning in the Business Education Curriculum Applied to Students with Special Needs

Awareness of the basic principles of learning and perception is an important component of effective teaching, and these principles must be studied in order to gain any predictive understanding of the nature of the learner in the classroom.[2] Now, as never before, the demands to educate everyone to the level of the individual's ability and the demand for excellence in education are both goals that must be accomplished. Because the effectiveness of the classroom endeavors are affected by the application of the principles of psychology, the special needs to educate youth demand psychological research. Since the teachers must teach and the students must learn, they should be regarded as coordinate and interactive, neither completely controlling the other.

While educators and psychologists recognize that individuals differ from one another, the extent to which they do so is seldom appreciated. This is especially true with respect to psychological traits, which are not as obvious as are physical traits. It is, therefore, the purpose of this section to help fill this void by explaining psychological differences relating to the learning and teaching of business related materials for students with special needs—learners who have academic, socio-economic, cultural, physical and/or mental handicaps.

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[2] Richard J. Mueller, *Principles of Classroom Learning and Perception* (New York: Praeger Publishers, 1974), p. 321.

Application of Learning Principles

How knowledge is learned is a most complex subject about which psychologists long have been concerned. In general, they agree that learning involves changes in behavior resulting from previous behavior in similar situations.

Limits of learning. The key to effective educational experiences lies in motivation. Students can be expected to exert themselves with whatever capacities they can muster when they are working toward goals that are meaningful in terms of their motives and purposes, as well as in terms of the backgrounds, abilities, and experiences of the students. Such experiences should make for: (a) maximum learning, retention, and functionality from the standpoint of successful living, (b) desirable attitudes and values, and (c) maximum tension-reduction, success, and self-fulfillment.[3]

The general characteristics of low-ability students may be summarized as follows:

1. Low-ability students learn by simple mental processes. They are confused by too many approaches and too-complex associations with a topic.
2. Low-ability students prefer the concrete to the abstract. Instruction should be focused on the concrete and special phases of a topic.
3. Low-ability students prefer brief units and special assignments.
4. Low-ability students possess limited powers of self-criticism. The learning process should be so organized that such students are not constantly overwhelmed but are enabled to proceed with order and certainty.[4]

The educational program for these students should be designed on the basis of the competencies in which they need to progress. Although there is much debate on this, the prevailing view seems to be that disadvantaged students should not be expected to follow the same curriculum at the same speed as their more advantaged counterparts. This means that the basic skills should be presented within a content framework as close as possible to the lives of the students. The range of abilities and individual differences for this group is vast. Therefore, one prerequisite for dealing effectively with the problems of individual differences is to diagnose each student's strengths and weaknesses. This analysis should be administered by the teacher so that the individual student's vocational aptitudes, such as manual dexterity and work capacity, and his or her basic skills and occupational interests can be determined.

Practice. Practice to develop efficiency in skills is a refining process that should be carefully supervised. Practice does not of itself bring results; however, a great amount of practice, the right kind of practice, is often necessary, especially in skill-oriented courses. Practice sessions that are spaced over a period of time are usually better for retention than massed practice. Practice is massed when there are long periods of continuous work with little rest. In addition, short sessions have an advantage in that longer practice periods may cause fatigue and tension and thus may reduce the learner's concentration and resourcefulness in achieving a good performance. Furthermore, distributed practice tends to be a more efficient method of learning when there is a great deal of material and much of it is not particularly meaningful, when the probability of erroneous responses in the early stages is high, or when motivation is likely to be low.[5]

To be effective, practice must take place in a meaningful setting. It is important to have the learner develop insight into the nature of the required performance. A basic postulate of the Gestalt position is that practice should come after understanding; drill in advance of insight is likely to lead to a consolidation of bad habits. Good form must first be established, then consolidated through practice. In typewriting, for example, practice must integrate accuracy and speed from the beginning. The student cannot build accuracy once and for all and then concentrate on speed, since introducing the element of speed changes the performance into an essentially different skill. In addition, the most effective type of practice is generally that in which the learner uses previous learnings in dealing with more advanced work. Teachers need to devise meaningful experiences which permit the students to use personal knowledge in the climb to new heights. Classroom discussion can be particularly effective in forcing the student to consolidate previous learning.[6]

Reinforcement. Knowledge of results or informative feedback is a special case of reinforcement which was first demonstrated to affect performance in the classical experiments of Thorndike. Psychologists have studied extensively various dimensions of knowledge of results as it determines performance during the learning of simple perceptual-motor skills. However, very few experiments have explored the ramification of informative feedback as it relates to more complex learning tasks or problem solving in which concepts are involved.[7] Teaching socially disadvantaged learners must be based upon the premise that they can learn and the expectation that among this group of students there is a wide range of aptitudes and abilities. The immediacy of reward, sometimes referred to by psychologists as an ingredient of reinforcement, is a significant concept for teachers of these youth.

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[3] George J. Mouly, *Psychology for Effective Teaching* (New York: Holt, Rinehart, and Winston, Inc., 1968), p. 567.

[4] Mueller, *op cit.*, pp. 233-234.

[5] *Ibid.*, p. 32.

[6] Mouly, *op cit.*, p. 317.

[7] Marvin L. Schroth, "The Effect of Informative Feedback on Problem Solving," ***Readings in Educational Psychology*** (Boston: Allyn and Bacon, Inc., 1973), p. 77.

For these students, some tangible reward or praise is the most effective reinforcement, while middle-class children need only to know that their responses are correct in order to be reinforced in their learning. These students need an appropriate balance between physical and mental activity. They tend to be predisposed toward the physical and the practical as contrasted with the abstract and the theoretical.[8] Therefore, business courses should be organized realistically and many of the standards might be modified, especially for the low-ability learner, so that each student can attain some measure of success.

Understanding and Insight. Cognitive theorists recognize that understandings, meanings, and attitudes, once achieved through insight, need to be further clarified through experience and application. They are not opposed to repetition, but they insist that insight precede practice.[9] The kinds of motives that the teacher can utilize and arouse are the personal and social motives that characterize children growing up in a particular culture. The school environment and atmosphere contribute to the arousal and support of particular motives. Due to various socio-economic backgrounds, students come to school with different expectations of achievement.[10] Disadvantaged adolescents view academic subjects with little enthusiasm, for they associate these courses with low grades and failure. Teachers need to find ways to maintain and strengthen the initial drive and motivation so characteristic of this group by providing an environment for learning that presumes success rather than failure.[11]

Since many of the problems in teaching students with special needs are centered around the student's perception of school and the world of work, attitudes must be modified. Attitude is defined as "a state of readiness organized through experiences exerting a directive and/or dynamic influence upon the individual response toward all objects or situations with which it is related."[12] Teachers working with these students need to be particularly understanding as well as adept in relating the business curriculum and teaching procedures to their needs and backgrounds. The need to understand these students is important so that the teachers can have influence in the development of attitudes that harmonize with their present situation of values as the point of departure from which to foster a more acceptable outlook.

Transfer. The ability to transfer a principle from one situation to another is very important in learning. Also of great importance is that transfer should create a positive attitude on the part of the students, a conviction that previous skills and knowledge are useful for solving future problems. Transfer of training occurs whenever the existence of a previously established habit has an influence on the acquisition, performance, or relearning of a second habit. Although the proponents of mental discipline have abandoned the claim that certain academic subjects "train the mind," they continue to believe strongly that a positive attitude toward academic subjects and learning in general is transfered and that the mastery of difficult subjects contributes to a stronger self-concept and a willingness to think reflectively.[13]

The learner must be taught to transfer consciously by being provided with numerous opportunities to try out what is known. From the vast amount of research on the subject, the following points have implications for the classroom:

1. Students should master subjects as thoroughly as possible if there is to be carry-over from the classroom to other situations. This means that teaching a subject in depth probably is more beneficial than attempting to cover a wide area of subject matter. However, the disadvantage of this method is that there will be significant gaps in the student's knowledge. With the current knowledge explosion, the pressure to "cover the ground" may be too great for the teacher to resist.
2. To facilitate transfer, the student should be exposed to a wide range of problems that differ somewhat from one another. This will encourage flexibility in thinking, since the student develops an expectation that each problem will have to be solved in a way that somewhat differs from the solution of previous problems.
3. The teacher should put heavy emphasis on principles and their application. Principles are likely to be retained and used when students are given opportunities to try them in a variety of problem situations.
4. A significant factor is motiviation—the need to transfer, or use, what is learned.[14]

Retention and Forgetting. Retention and forgetting are complementary processes, retention referring to the preservation of what is known, forgetting to its loss. Forgetting is selective and although in some areas there is an almost complete loss, in others gains may actually occur during a period of disuse. Not only can forgetting be minimized, but a good deal of what is forgotten is really not overly important. The learner needs details to gain a definite grasp of the principles involved, but once they have enabled the learner to go beyond to generalizations, their loss is of no great importance.[15]

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[8] Mueller, *op cit.*, pp. 289-290.

[9] Mouly, *op cit.*, p. 55.

[10] Pauline S. Sears and Ernest R. Hilgard, "The Teacher's Role in the Motivation of the Learner," *Readings in Educational Psychology* (Boston: Allyn and Bacon, Inc., 1973), p. 323.

[11] Mueller, *op cit.*, p. 283.

[12] Mouly, *op cit.*, p. 452.

[13] Mueller, *op cit.*, p. 35.

[14] *Ibid.*, p. 36.

Retention is facilitated most readily when each student understands and accepts the goal the individual is striving for, especially when it holds personal meaning. Experimental research indicates that, because of the immediate feedback and the overt rather than the passive nature of the learning, recitation activities are more beneficial than rereading, particularly from the standpoint of delayed recall.[16] One needs facts to use as stepping stones to higher levels of understanding and although they are often forgotten and although the mere possession of facts does not ensure insights, generalizations, and principles, the latter would not be possible without facts. Yet, it is these higher levels of understanding, and not the facts upon which they are based, which are the important outcomes of education—and these are relatively resistant to forgetting.

Research has shown that students with special needs are most likely to acquire vocational competency in the business curriculum if the teacher (1) is sensitive to the dynamics of the teaching-learning situation; (2) is concerned about the problem of building ego-strength in each student; (3) has some understanding of the forces which affect the development of ego-strength in students; (4) has access to resources and ideas that could be useful in bringing about change; (5) possesses the skills and tools for diagnosing the actual state of affairs within the classroom; (6) develops strategies for altering the situation; (7) is supported by the principal and by colleagues in trying out the changing plan; (8) has professional consultation and training help available as needed; and (9) has some means of evaluating the effectiveness of the change.[17]

Psychological Principles of Learning in the Business Education Curriculum Applied to the Skill Subjects

Educators and psychologists generally agree that there are different kinds of learning processes, and the application of psychology depends upon recognition of the nature of the learning problem. One of the most widely accepted classifications of learning is Bloom's affective, cognitive, and psychomotor domains.

Affective principles of interests, attitudes, and values relate to all kinds of learning and usually are discussed within the context of motivation. The other two domains, psychomotor skill and cognitive learning, differ in degree and kind. The cognitive domain deals with the development of intellectual abilities and skills, the psychomotor domain with movement-involved skills.

The difference is recognized in business-teacher preparation through the offering of at least two different methods courses, one for skill subjects and the other for basic business subjects. There is no absolute dichotomy by business subjects, however, in these learning classifications. Skill courses have cognitive elements.

No single, comprehensive theory has been formulated to account for all psychomotor skill variables. Learning theories appropriate to the task behaviors, ability factors, and critical problems of the psychomotor skill process reflect the functional emphasis on learning by doing, the stimulus response concepts of contiguity and reinforcement, and Gestalt concepts of perceptual patterning.

To clarify the bases for application of psychological learning concepts to psychomotor skill development this section focuses on typewriting instruction, with the understanding that the identified concepts can be applied to other instructional areas with similar characteristics. For all movement-involved skills, the overall pattern of development is essentially the same.

The Motor Skill Process

The distinguishing features of the psychomotor skill process are the time and space relationships acquired for movement-involved tasks. The major feature is the neuromuscular activity that leads to automatization of a series of interdependent time-and-space patterns known as response chaining. Unlike other kinds of learning that are relatively free of "muscle sense," motor skill depends upon the development of motor discrimination or kinesthesis, the sensation of position, movement, and tension perceived through nerve end organs in muscles, tendons, and joints. In typewriting and manipulation of other office machines, the neuromuscular activity is performed on stationary equipment, under time stress, and from a seated position.

Typewriting teachers should be familiar with the characteristics of basic motor skill performance in typewriting. Teachers, however, are accustomed to thinking in terms of beginning, intermediate, and advanced courses or in terms of words-per-minute with a certain error ratio.

Because many of the skill concepts must be qualified as to the conditions of their application, and because qualifications often relate to the phase of psychomotor development, descriptions are needed in terms of process, i.e., what we are trying to get the learner to do. Three phases have been identified:

1. Familiarization and response orientation (familiarization with overall nature of the typewriting task and equipment and understanding of how to make correct movements in response to correct stimuli)

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[15] *Ibid.*, p. 31.

[16] Ronald Lippitt, Robert Fox, and Richard Schmuck, "Innovating Classroom Practices to Support Achievement Motivation and Ego-Development," *Readings in Educational Psychology* (Boston: Allyn and Bacon, Inc., 1973), p. 131.

[17] *Ibid.*

2. Refinement (continuous stimulus-response modifications as the learner moves from single letters or strokes to combinations of overlapping strokes)
3. Fixation and automatization (increasing degree of pattern conditioning that enables the learner to perform the operation with less conscious direction).

These are arbitrary and overlapping phases. Refinement begins with the execution of the very first response pattern, familiarization continues well into the refinement phase, and fixation and automatization occur throughout the developmental process. The phases do describe major process variables in terms of relative emphasis, however, and are useful in directing attention to significant task variables and in systematically relating the learning concepts.

During the initital phase, the critical instructional factor is simplifying the stimulus situation in such a way that the learner will know what to pay attention to. The teacher must identify cues so that the learner's attention is focused on essential factors of skill development.

Refinement is a much longer process. The student moves from single-letter patterns to combinations of letters, and strokes are varied in an attempt to find out how to fit them together most efficiently. Blending strokes into overlapping sequences is a gradual, incremental process. As the rate of learner progress begins to decelerate, the critical teaching problems are (a) how to maintain sufficient motivation through setting realistic learner goals that can be reinforced, and (b) how to arrange pattern drills and rate drills in such a way as to condition both correct motion patterns and fast rates.

Phase three is an extension of the refinement phase. As learners refine patterns and learn to combine letters, they are also "fixating" or automatizing some of them, so that they no longer have to think consciously about all of the responses that their fingers are making. As they are freed from consciously attending to manipulations (keyboard or handwritten symbols), learners are able to concentrate on the copy material and to adapt skills to various problem situations. A critical instructional problem at phase three is identifying less conditioned combinations and operations and bringing them up to the level of the more efficient ones. A second problem is eliminating fixed errors. Also, since rate becomes conditioned along with the patterns, it may be difficult to break through conditioned rate ceilings.

Although objectives and learning variables differ for each of these developmental phases, all three contribute to the ultimate objectives—speed, accuracy, economy and fluency of movements, and adaptability of performance. In the latter phase, the basic skill is applied to problem situations. Even this aspect is fairly routine and subject to certain conditioning, however, for this kind of thinking involves concrete objects. Reasoning about concrete objects is quite different from reasoning about abstractions, as in such cognitive areas of learning as philosophy or economics.

Instructional Practices

For psychological principles of learning to be practical, they must not only apply to a specific learning process, but must also describe variables through which the teacher interacts directly with students, i.e., cues and reinforcements. Cues refer to stimuli that precede and guide learner action, such as assignments, explanations, and demonstrations. Reinforcers are stimuli that follow learner action and strengthen the action they follow. The word "good" from an observing teacher is a remarkable reinforcer; but reinforcement, as noted in the following section, includes more than confirmation and rewards.

Two interrelated instructional practices, observing and evaluating, play contributing roles. In fact, the effectiveness with which the teacher manipulates cues and reinforcements depends to a large extent upon the teacher's observation and evaluation of the learner's responses.

Skill Principles Applied to Instruction

Listed below are seven principles of skill that might be applied by the teacher in a typewriting classroom.

Principle 1. Factors that contribute to the effectiveness of learner guidance include contiguity (the timing factor), sequence, and balance among teacher explanation and demonstration, and learner execution of the act.

Explanation aids the learner's visual and oral discrimination of cues as he/she observes the actions and listens to the sounds in the teacher demonstration to follow. Because the learner's attention span is limited and, additionally, he/she is unable to comprehend movement-involved responses without experiencing the movement, (a) learner attention should be directed to a limited number of essential cues in each drill (introduce only two or three cues at a time), (b) short demonstrations of task elements should be presented just prior to their use, and (c) learner responses should immediately follow each demonstration.

With a complex skill, each basic operation should be presented just prior to training in its use and then integrated into the total typewriting pattern. The "whole method," in which the demonstration is continued through its entirety rather than presenting segments within the unit, results in poorer performance than any other form of practice-demonstration arrangement. Paper insertion drills, tabulation drills, shift drills, number drills, and error-correction drills should be demonstrated and practiced. Prompting should be short and frequent in early phases, with gradual lengthening of demonstrations as learning progresses.

After the learner attempts to imitate the teacher demonstration, a second demonstration by the teacher, based on observation of the learner's actions, will help to clarify the essential features. Briefly:

a. Teacher calls attention to essential cues through explanation of specific processes: paper insertion, keyboard reaches, and shift drills.
b. Teacher demonstrates the process.
c. Student imitates—tries the task.
d. Teacher evaluates student's efforts.
e. On the basis of his/her observation, teacher demonstrates points that need additional emphasis or correction. Demonstrations are frequent and short.

Principle 2. The development of motor discrimination or kinesthesis, upon which skilled movement depends, is aided by cueing that reduces response variations.

For complex motor skills such as typewriting, motor discrimination proceeds slowly. The learners must learn what to do, how to do it, and what to expect in kinesthetic feedback from their actions. Feedback refers to knowledge of the degree to which an action is correct or incorrect. Learners should not be left to work out their own techniques, for they are unable to discover the most efficient responses. Specific motion techniques should be taught from the beginning, tempered by understanding of individual differences and of the harmful effects of overly intense stimulation. Factors in motor discrimination are:

a. The muscles involved
b. Rate of contraction and relaxation
c. Force or intensity
d. Path.

Inasmuch as slow motions differ from fast motions in all of these characteristics, and habits are difficult to change, individual motions should be fast from the start. Obviously, a beginner cannot type rapidly; but by permitting delays between strokes, each separate stroke can be executed with speed. Gradually, students extend the number of rapid strokes between delays.

Specific techniques of motion economy that have general application can be taught for eliminating unnecessary motions, simplifying motions, and establishing the most favorable sequence of motions. Technique principles, developed by Frank Gilbreth, the father of time-and-motion studies, are applied to typewriting instruction in the following illustrations.

In skill movements, distance and path should be as short as possible while maintaining curved or circular movement assisted by momentum and gravity. Curved movements are made more easily and are less fatiguing than straight-line, back and forth movements.

Positioning for effective motions requires that the body's center of balance be used for mechanical advantage, with arms properly aligned with the keyboard slant both vertically and horizontally so that a straight line extends from knuckles to elbows. These are the reasons students are required to sit with both feet flat on the floor, with hips well back in the chair, and with fingers curved above the guide row. These are the reasons teachers insist that the typewriting tables be the correct height to accommodate students of assorted sizes and arm lengths and that chairs be placed the correct distance from the typewriter. Correct distance from the typewriter is an individual matter, depending upon arm length. Elbows should be aligned with the learner's body. The typist who sits too close "wings out." If the student sits too far away, elbows are forward from body position.

The subject of equipment introduces another time-and-motion principle: **environmental conditions should be arranged to eliminate unnecessary motions, with fixed locations for better use of equipment and materials.** Students need typewriting tables sufficiently large, with work space on both sides of the typewriter, to facilitate proper paper handling. All supplies, including materials for error correction, should be maintained in fixed locations.

Teachers may assist students in further eliminating unnecessary motions by providing directions for definite motions over definite proportions of space and by insisting that students not introduce superfluous movements into the processes. Marginal stops should be set in two swift steps; it is not necessary for a student to verify more than once that the right margin is correct.

Time and motion principles apply not only to equipment manipulations but also to preliminary and subsequent actions in the typewriting process, such as paper assemblage, insertion, and removal. Some students will waste minutes just trying to align the top edge of their typewriting paper with the alignment scale. The teacher must see that students economize their motions in the classroom, and he or she must insist that students observe the same motion economies during unsupervised practice. Learners do not automatically transfer techniques from class to practice sessions unless they are frequently reminded to do so.

To reduce time and energy requirements further, **motions should be assigned to the lowest practicable classifications of body involvement: finger, finger-wrist, finger-wrist-forearm, finger-wrist-arm, and finger-wrist-arm-shoulder.** Teachers should have their students strive to type rapidly with the least possible expenditure of energy; this will help to minimize excessive action. Key reminders include: keep typing action in fingers, be sure hands and arms are still, and maintain minimum wrist motion.

Correct fingering must be used; it is the exception to this rule that retards automatization. Reduce the possibility of incorrect fingering by restricting the number of new reaches introduced at each session. Permit beginners to look at their keyboard in the learning process, but have them concentrate on the "feel" and then immediately repeat the action without looking. Visualization is a very effective temporary crutch in establishing reach patterns; learners will stroke more rapidly because of increased confidence. But visualization must be used prudently to prevent conditioning a habit that later must be broken. Students who continuously look at the keyboard should repeat patterned reach drills. Key watchers need to strengthen their sense of key location and develop the sensations of movement patterns.

Another principle states that **each motion should be made so as to be most economically combined with the next motion.** Applied to typewriting, this principle indicates that whenever it is feasible, direct reaches should be made without returning to guide row. Zoning permits this kind of movement patterning. Although the assigned finger always controls the assigned keys, the reach pattern for each letter may vary according to the preceding and subsequent letter in the copy materials. Some sequences simply fit together better than others. Response combinations generally correspond to keyboard arrangement and fingering facility rather than to syllables, words, and phrases in the copy.

To summarize the cueing techniques that reduce response variations and aid development of motor discriminations:

a. Motions are fast from the start.
b. Learner's body is properly positioned and aligned in relation to machine.
c. Distance and path of motions are as short as possible consistent with curved movements.
d. Fixed locations are maintained for equipment and materials.
e. Motions are assigned to the lowest practicable classification of body involvement, e.g., motions should be restricted to the fingers as much as possible.
f. Correct fingering is used.
g. Direct reaches without returning to guide row contribute to fluent motion.

Principle 3. Pattern is a significant variable in the time-and-space relationships of motor skill development.

To simplify patterns, teacher demonstrations should be performed so that the learner observes the task in a setting and form identical to that which will be encountered when attempting to perform the task. Application of this skill principle would require that typewriting demonstrations be made from a seated position. Preferably, equipment should be arranged on a raised platform at the front of the typing room, and demonstrations should be observed over the shoulder or from the side. Demonstrations from a standing position, with the demonstrator facing the students, do not accurately portray patterned spatial relationships.

Another method of simplifying the pattern is to slow down the motions to which the learner must attend. Demonstrations generally involve an element of rate selection to accommodate the performance level of the learner. However, because experts do not make slowly the same motions that they make rapidly, teacher performance slowed for emphasis sacrifices some essential features of the expert pattern. As an alternative, motion pictures provide a potential medium for presenting an action in slow motion without changing the form.

Maintaining equipment constancies and prepositioning the body also facilitate development of sensations of movement patterns. In the early phases of typewriting instruction, students should sit in the same chair at the same table and typewrite on the same typewriter each day. Any change—typewriters too high or too low, too far right or left—disturbs the spatial relationship and retards motor discrimination. Briefly: the learner observes a demonstration from the same angle and in the same form that the skill is to be performed; maintaining equipment constancies and prepositioning the body facilitates the beginner's development of movement patterns.

Principle 4. Cue variation is essential to maintenance of learner attention. However, overstimulation, or too many contrasting events presented in an overly rapid succession, is harmful to movement-involved skills.

There is an optimum level of activation in the classroom at which effort and attention are efficiently directed. Over-stimulation results in muscular tension and attention wrongly directed; too little effort to activity results in dispersed attention. This principle relates closely to the next.

Principle 5. Practice and rest intervals should be arranged for promotion of optimum effort and attention and for reduction of fatigue factors that contribute to conditioning of improper responses. Optimum length of interval varies according to phase of development, difficulty of task, and nature of the learner.

Although in developing basic manipulative skill, class periods of less than an hour are recommended over longer periods, frequent breaks and variations in learning activities appear to be more significant factors than total length and frequency of instructional periods. In early phases of development, learner attention and effort should be directed toward a single objective for a short interval of 15 to 60 seconds. These drills are extended gradually to longer periods—two minutes, three minutes, five minutes. In the automatization phase, objectives should be integrated into sustained production activities.

Massed practice results in variations, inattentiveness, mistakes, and fatigue. These last two—mistakes and fatigue—are interrelated so that each compounds the other; they greatly reduce the effectiveness of both instruction and practice. On the other hand, the teacher should have sufficient repetitions of elementary drills to maintain students' confidence in their ability to execute the processes. One reason for longer drills and periods as skills develop is the necessity for completing the total operation. Typists must extend their skills to sustain production activities.

Variations in classroom procedures may include pathway drills, special stroking drills, pacing drills, shift-key drills, tabulator drills, spacebar drills, calling-the-carriage-return drills, guided writings, number drills, symbol drills, speed drills, and control drills. Drills may be interspersed with explanations, demonstrations, and just plain relaxation. In summarizing principle 5:

a. Drills are short; they are extended gradually as skill develops.
b. Drills are varied; they serve specific purposes.
c. Learner drills are interspersed with teacher explanations and demonstrations.

The concept that spaced practice is superior to massed practice relates closely to principle 6.

Principle 6. Motor skill develops most efficiently if learner behavior is goal-directed.

An overview of the total skill process facilitates goal-directed learning of the whole through a study of its parts. Short-term goals include letter-finger-key associations in the initial phase; alternate goals for improving the space pattern and for increasing the rate in the refinement phase; and goals to improve less efficient cycles and to apply motor skill to problem situations in the automatization phase. Optimum pacing of activities requires close observation and evaluation by the teacher.

Quantitative goals, relating to speed or to accuracy, should be individualized at all phases of development. These goals should be real to the learner and within that range of learner uncertainty where both success and failure are possible. Failure experiences may depress learning; on the other hand, too-easy success may produce the same effect. Perhaps no other learning activity provides better opportunities for realistic goal setting, based on objective data available to both teacher and learner, than does typewriting.

But goal-setting alone does not guarantee success. The teacher must have a well-planned sequence of actions leading to accomplishment of the goals. In addition to unison rate-forcing drills, technique improvement drills should be prescribed for individual problems. Judicious selection and use of copy material is a factor. The teacher should use patterned reach drills, repetition of serial combinations for difficult reaches, special copy for developing less frequent manipulations, and drills for specific phases of problem applications; e.g., computing spacing for copy-arrangements, making machine adjustments, proofreading, making corrections, etc. Briefly:

a. Directional typewriting goals are varied (e.g., technique, speed, accuracy, adaptability) to establish a mind set.
b. Quantitative goals are individualized and within the range where both success and failure are possible.
c. Activities are sequenced to assist goal achievement.

The final concept is the most significant.

Principle 7. Reinforcement has been shown to be the most important variable in motor skill development. There is little improvement through practice without it, and deterioration follows its withdrawal.

Educators tend to think of reinforcement in terms of reward and punishment, but there are other reinforcers. Differential reinforcement, also called correlated reinforcement or feedback, furnishes knowledge of the degree of correctness or incorrectness of a response.

Differential reinforcement is particularly applicable to typewriting, in which a response is not just right or wrong but may reflect varying degress of accuracy, fluency, and speed. It is extremely important in the refinement phase, during which the learners constantly vary their responses as they combine letter sequences and improve their techniques.

In the initial phase, however, errors in product and the normally awkward and superfluous responses of the beginner should be ignored by the teacher. This withholding of reinforcement, known psychologically as nonreinforcement, helps extinguish incorrect responses if instruction is focused on presentation of cues to improve learner techniques.

Positive reinforcement that emphasizes improvement is most effective in maintaining a pleasant atmosphere and in reducing classroom tensions. It is closely related to goal-setting. Inasmuch as a response must occur in order for motor skill to develop, the penalty for making an error must not be so great as the reward for trying. A too-early emphasis on accuracy tends to condition hesitant stroking, keywatching, and tension. The teacher should avoid focusing learner attention on errors.

Reinforcement sources include the teacher [illegible] model or copy, the product, and the learner's own judgment as to quality of performance. Fixation of adequate responses and elimination of inadequate responses depend upon the perceived consequences following the action. In the initial phase, neither product nor motor discrimination is a reliable source of learner feedback; the beginner does not know how a movement should feel and the product does not accurately reflect technique. Learning to discriminate cues within one's own performance is an important aspect of skill development. The rate at which kinesthetic feedback becomes reliable depends upon the rate at which the beginner learns what to do, how to do it, and what to expect in kinesthetic feedback. Therefore, directors of skill learning must be excellent observers and diagnosticians of factors in correct techniques as they assist students in becoming more capable of judging the quality of their own performance. Throughout the developmental phases, the most reliable source of differential reinforcement is the expert who understands the critical aspects in a situation, the skilled teacher.

Summary

As a learning process, psychomotor skill development has certain differentiating characteristics, including time and space patterning, continuous interaction of response processes with cue and feedback processes, and varying degrees of automatization. Although sequential mastery of steps in a hierarchical arrangement is not required, the gradual integration of simpler processes into more complex units is sufficiently defined for logical deduction of three performance phases: (1) familiarization and response orientation, (2) refinement, and (3) fixation and automatization.

Psychomotor skill develops through the learner's discrimination of essential cues and through perception of the consequences of trial-and-error responses. Development proceeds most efficiently under expert guidance, with instruction based on explanation, demonstration, and reinforcement of the learner's response. Effective cueing appears to be the critical instructional variable in initial and advanced phases; reinforcement is more important during the intervening refinement phase. Seven principles of cueing and reinforcement have been defined and illustrated through application to typewriting instruction.

Psychological Principles of Learning Applied to the Non-Skill Business Education Courses

The purpose of this section is to provide some insight into how learning takes place most efficiently, and with maximum permanency. Focus will be placed on the non-skill business education courses. If one considers Bloom's classification of learning as a frame of reference, these courses would fall under two categories, namely (1) the affective domain, which involves interest, attitudes, values, and the development of appreciations and adjustments, and (2) the cognitive domain, which deals with the recall or recognition of knowledge and the development of intellectual abilities and skills.[18]

Complexity, Questions and Disagreements

Any individual who attempts to approach this area of inquiry will immediately sense the problems inherent in the complex topic of Learning. In the first place, numerous societal and economic forces have continued to have an effect on learning. In fact, probably at no time in this century have the effects of learning been under such severe scrutiny. While there are multifaceted reasons for this phenomenon, the problem still persists.

Second, while the extensive work of educators and psychologists has made people more knowledgeable about learning, the empirical evidence will show that many questions still remain unanswered and disparities abound. At the most elementary level, scholars have yet to agree totally on a definition for learning. Kuethe suggests that a major reason for the inability to define learning in ways that are completely satisfactory is that any given definition seems to exclude some elements that should be included and fails to rule out other cases that should not be admitted.[19]

Learning theorists are also in disagreement. While there are several areas of controversy, two are major. They center on the nature of learning and the conditions which are required in order for learning to occur.[20]

Yet, if one delves further, another, but perhaps contemporary, conflict will emerge. On the one hand, extensive study in the area of brain chemistry has prompted many psychologists to propose that all human behavior, including thinking, feelings, and motives, may depend on chemical processes in the brain and, therefore, may be capable of change and control through the use of chemicals. On the other hand, some psychologists, while recognizing the importance of brain activity, adhere to the Gestalt view of psychology; they believe that the whole of human nature is greater than the sum of its parts.[21]

Perhaps a dissertation could be written on the existing disparities. However, that is not the purpose of this discussion. Rather, the intent is to briefly examine some aspects of the learning principles cited in the introductory section, and to develop some themes around them that will be beneficial to teachers of the non-skill business education courses.

Principle 1. Enormous variability is one of the most striking aspects of human beings. Learning is enhanced when the learning environment is tailored to meet the needs of each learner.

With regard to the principle of individual differences, three major factors should be considered.

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[18] Benjamin S. Bloom, (ed.). *Taxonomy of Educational Objectives; Handbook 1: Cognitive Domain* (New York: David McKay Company, 1956).

[19] James L. Kuethe, *The Teaching-Learning Process* (Glenview, IL: Scott, Foresman and Company, 1968), p. 5.

[20] Kuethe, *op. cit.*, p. 31.

[21] Jerome Kagan and Ernest Havermann, *Psychology: An Introduction* (New York: Harcourt Brace Jovanovich, Inc., 1976), pp. 34-35.

First, individuals differ physically, and in interests, ability, aptitude, home background experience, previous training, attitudes, goals and the like. Second, individuals learn in their own way and at their own rates. They differ with regard to the method used to attain knowledge and in the degree of efficiency attained. Third, each individual's learning is influenced by interest, physical make-up, past experiences, and future goals.

Just as the physician seeks the right treatment for each malady, the teacher must seek the right training procedure for all learners, and the proper remedial procedures for each deficiency in performance. Specifically, instructional procedures could be evaluated almost entirely on the basis of the degree to which they do indeed apply to learners at different levels of ability, the degree to which they do not favor one person at the expense of another, and the degree to which they are appropriate to the particular and different needs of the individuals.[22]

It must be realized that the principle of individual differences has cognitive and affective elements. Since individuals differ in intellectual abilities, often it is not possible to rely solely on the adopted text or upon mass teaching methods. In such instances, instructional strategies and materials must also be varied. Provisions should be made for the average students, and special provisions should be made for the slower and gifted learners. One possible strategy is differentiated assignments, whereby the amount of work and the nature of the difficulty of the assignment would be tailored to meet the needs of average, lower ability, or gifted learners. Another alternative is to have instruction on a totally individualized basis.

Several affective factors, such as motivation, fear of making mistakes, and expectancy of success, often are influential in determining the learner's success. These motives exist in a hierarchy, and the six basic motives usually in operation in any given classroom include: (a) the desire for teacher approval; (b) the desire to be similar to the teacher; (c) the desire for mastery; (d) the desire to resolve uncertainty; (e) the desire for control, power, and status; and (f) the desire to gratify hostility. Hence, it is the teacher's role to ascertain each learner's hierarchy of motives, tailor individual programs, direct instruction carefully to each learner's level, collaborate with the learner on setting goals, reduce the learner's anxiety, and generate mild uncertainty.[23]

Principle 2. Appropriate distribution of practice is a useful tool in the management of learning. In most cases, it reduces the time required for learning and has been shown to improve one's ability to remember what has been learned.[24]

Distribution of practice refers to the manner in which practice time is arranged, the length of practice periods, and the number and duration of rest periods. Appropriate distribution of practice is a crucial feature in learning because practice time arrangements mainly affect motivation, and as a consequence, affect fatigue, boredom, and the like.[25]

Massed practice is generally less efficient than spaced practice. The total amount of time spent in learning is often strikingly more efficient when invested in short, separated periods. This holds true for simple classical conditioning as well as for more complex intellectual tasks.[26]

Three possible explanations have been offered to support the superiority of spaced practice: (a) spaced practice reduces the boredom that often occurs in massed practice in verbal learning, (b) during the intervals between spaced practice sessions, learners engage in a process of *covert rehearsal,* whereby they continue to mull unconsciously over the material that has been learned; this rehearsal results in a *consolidation* of what has been learned, (c) in various types of learning, individuals not only learn what is desirable, but a number of useless and irrelevant habits as well. During the intervals between spaced practice sessions, the process of *differential forgetting* is more apt to take place, whereby the extraneous habits may be forgotten more quickly than the basic subject matter of the learning.[27]

Principle 3. Individuals can achieve satisfaction from a learning activity if they receive pleasure in the course of the activity, pleasure in completing the task, or pleasure in making progress toward a distant personal goal.[28] These concepts relate both to motivation and reinforcement.

The motives of learners will determine what they choose to learn. Each individual has different desires, needs, and interests that are based on past experiences and momentary tendencies.

Motivation usually sets the direction in which the effort will be made. Motivation is a crucial feature in learning; it is the conditions inside and outside learners that cause them to try. Motivation takes on two basic forms—*intrinsic* and *extrinsic.* Intrinsic motivation, which is considered superior to extrinsic, comes from *inside* the learner. It is an integral part of the learning situation. The individual seeks to learn not for any external reward but because of the desire to learn because of a love for learning. This type of learning builds and grows. Extrinsic motivation comes from outside the learner, is established artificially, and is created by rewards or prizes that have no real connection with the learning situation. This form of motivation has some value, but must be widely distributed. It does little good to reward only a few students.

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[22] Leonard West, "Five Major Learning Principles" (New York: City University of New York). (Mimeographed)

[23] Jerome Kagan and Cynthia Lang, *Psychology and Education* (New York: Harcourt Brace Jovanovich, Inc., 1978), pp. 202-302.

[24] W. A. Wicklegren, "Trace Resistance and Decay of Long-Term Memory," *Journal of Mathematical Psychology,* (November, 1972), pp. 418-455.

[25] West, *loc. cit.*

[26] Kagan and Havermann, *op cit.*, p. 109.

[27] *Ibid.*, p. 110.

[28] Lee J. Cronbach, *Educational Psychology* (New York: Harcourt, Brace Jovanovich, Inc., 1977), pp. 593-594.

The teacher's role is to manipulate anxiety states by creating dissatisfaction with the learner's present status, removing that dissatisfaction through teaching that leads to the learner's success, creating more dissatisfaction, removing it, and the process continues. The teacher gives praise and incentives and creates in the learner the desire to discover. These methods of reinforcement are essential features of learning, and they serve a variety of functions.

Reinforcement is a technique for strengthening associations between stimuli and responses. Reinforcing a response increases the probability that the response will again be made the next time the same stimulus situation is presented. Hence, the teacher reinforces a response when he or she informs the learner whether the response is correct. This reinforcement increases the probability that the learner will make the appropriate response when the same stimulus situation is encountered. Hence, reinforcement consists of furnishing the learner with knowledge of results. Knowledge of results can also serve as a corrective function. For example, knowledge of a wrong response orients the learner to select a different and perhaps more appropriate response the next time a similar stimulus situation is repeated. In addition, knowledge of results provides the learner with critical information concerning his/her behavior. Specifically, knowledge of results provides learners with knowledge about: (a) how they are progressing, (b) how much they have learned, (c) how many mistakes are being made, and (d) the kinds of mistakes being made. This feedback also helps to capture and hold attention; it helps to maintain interest, and it assists in satisfying motives. Last, but not least, it urges students to continue to try.[29]

Principle 4. Individuals can best learn if they truly *understand* the material that is being taught.

Major objectives of teaching are to train learners how to think and to provide the appropriate backgrounds for whatever thinking is to take place. Teachers have persistently been concerned about the process of understanding; they want to be assured that the learner is grasping the idea, principle, or meaning of what is being taught.

Yet, there are no techniques for teaching understanding. It is a mere reaction that either will come or will not come. Learning can take place whether the learner understands or misunderstands. The contribution of understanding, or misunderstanding, is that it promotes a feeling of satisfaction within the learner.[30]

While there are no techniques for teaching understanding, the teacher can employ certain techniques that will assist in *promoting* understanding. In this regard, three critical factors are of significance. First, the teacher should capitalize upon the nature of imagery. Second, in the learning situation focus must be upon *what* is to be learned. Hence, the teacher must communicate the concept or idea to the learner. The learner must perceive this communication with precision. In summary, teacher and learner must be communicating on the same level; they must be in agreement about what is to be learned. Failure to do so could lead to learning without any understanding at all. Third, if the teacher wants the learner to understand a concept or idea, the teacher must see to it that the material is presented and learned in the most efficient manner. For example, should the learning be achieved through the teaching of principles or rules? Or, should rote memory be utilized as the vehicle for learning?

The Role of Imagery in Promoting Understanding

The image represents past experiences, and the survival of past experiences is the significant power that enables the learner to take advantage of learning. Without imagery, there would be no learning, memory, thinking, or behavior at all that represents anything beyond a primitive response to a present stimulus. Imagery facilitates learning. Therefore, if the learner is to think correctly, or realistically, he or she must have had sufficient and prior experience. The teacher must, then, control the imagery of the learner. This phase of learning takes time; it is during this period that the learner automatically experiences a succession of images, and pays attention to those that somehow provide satisfaction.[31]

Imagery selection, then, is one of the keys to learning; it is essential, for students cannot learn unless they are paying attention. Yet, attention in itself is not sufficient. If what is learned is to be stored in long-term memory, how well one remembers will depend upon the efficiency of the process. Organization is a key tool in the process, because effective storage in long-term memory depends in large part on the learner making sense out of new information and fitting it in with what is already known.[32]

Teaching for Meaning or Principles

Teachers, on the one hand, argue that learners must be able to see the meanings of certain facts. Yet, psychologists contend that meanings cannot be conveyed, explained, or communicated. They are seen as reactions that are aroused in a learner and they depend on the learner's experience. Hence, teachers cannot provide meanings; the learner will respond in terms of the meanings dictated by experience. The teacher can, however, *control* the meanings by controlling the experiences of the learner. It must be remembered, though, that the meanings experienced by each learner will vary greatly.[33]

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[29] Kagan and Havermann, *op. cit.*, pp. 85-87.

[30] B. R. Bugelski, *The Psychology of Learning Applied to Teaching* (Indianapolis: The Bobbs-Merrill Company, Inc., 1971), pp. 220-228.

[31] Bugelski, *loc. cit.*

[32] Kagan and Havermann, *op. cit.*, pp. 92-112.

The role of meaningfulness as an aid in organizing materials has considerable merit. Organization is an important aid to learning. However, the learner is often at the mercy of the materials he or she is trying to learn. If the materials "make sense," or are "meaningful," they are usually easy to organize. If the materials do not make sense, the learner will experience difficulty in organizing the material.

Closely related to the role of meaningfulness as an aid in organizing materials is another well established fact about learning: The learner will learn more easily and remember longer if the learning is by rule, principle, or logic, rather than by rote.[34]

When principles or rules are available, the teacher should present, illustrate, and exploit them. The learner must be taught to *recognize* and discriminate the stimuli that fit any given principle. It is dangerous to assume that the learner will perform these tasks automatically; they must be taught.

There is some virtue in allowing the learner to develop principles. However, this should not be done to the detriment of the learner. If too much time and effort is consumed in formulating confusing and incorrect statements of hypotheses, appropriate instruction might easily exceed the presumed advantages of having the learner "dig it out for himself(sic)."[35]

Teaching for Rote Learning

It has been pointed out that learning by rule or principle is superior to learning by rote. However, rote has some merit, and in certain instances it is the most efficient route for learning. When there are no principles or organizing statements, and when mere facts must be learned, there is no alternative to learning the hard way. Hence, rote learning must be learned by rote.[36]

Principle 5. There are certain instances when learning one concept or skill does help in the learning of another concept or skill.

Education is based on the assumption that what is learned, or the changes in behavior acquired in the classroom, may be employed or *transferred* to other situations. In fact, the whole concept of the curriculum is based on two vital elements. First, certain material must be learned, and certain skills must be acquired. Second, some forms of learning have to take place before other forms can be acquired.[37] For example, the learner who has studied arithmetic can use the knowledge and skills gained in that subject when learning accounting. The learner can further use the knowledge and skills gained in the accounting class in real-life situations.

Transfer of training occurs whenever the existance of previously established habits has an influence upon the acquisition, performance, or relearning of a second habit.[38] Transfer depends on the existence of similarities in situations. Some kinds of similarities furnish positive transfer; other kinds furnish negative transfer. Without similiarities, then, there would be no transfer.

Positive transfer exists when the acquisition of one skill facilitates the acquisition or retention of another skill; the learner makes an old response to a new stimulus. Negative transfer exists when the acquisition of one skill interferes with the acquistion or retention of another skill; the learner makes a new response to an old stimulus.[39] Whether transfer is positive or negative, then, will depend upon whether performance is facilitated or interfered with as a result of prior learning.

The transfer learning principle should be of utmost concern to the non-skill business education teacher. Knowledge gained in the classroom should be applicable to the duties that will be performed in real job and life situations. Therefore, the content of the business courses should consist of situations whereby the learners can develop the types of responses that will be needed for job performance and living in a business society as well.

Since it is the teacher's role to promote transfer, *teaching for transfer* should be an integral part of the learning procedures. Learners must be motivated to transfer what they have already learned. Practice in transfer to new situations must be included in most classroom lessons. Learners must be encouraged to practice in generalizing relationships to new situations; this is the essence of training for transfer.

When the teacher realizes that certain concepts are subject to negative transfer, special care must be taken to teach these concepts in such a way as to reduce probable confusion in learning.

Teaching techniques should be designed to increase the probability that the learners will transfer what they have learned to situations that differ from the specific context in which the learning took place. For instance, examples can be given to show how the material under consideration has other applications. When principles are taught, the teacher can point out the applications of these principles, and learners should be given opportunities to produce applications or similar examples as practice in looking for transfer possibilities. Once learners have developed the attitude that what is learned has meaning outside of a limited context, they will begin to search for relationships on their own initiative.[40]

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[33] Bugelski, *loc cit.*

[34] Kagan and Havermann, *loc cit.*

[35] Bugelski, *loc. cit.*

[36] *Ibid.*

[37] Kueth, *op. cit.*, pp. 179-188.

[38] John A. McGeogh, *The Psychology of Human Learning* (New York: David McKay Company, Inc., 1961), p. 299.

[39] Robert M. W. Travers, *Essentials of Learning* (New York: The Macmillan Company, 1967), pp. 234-235.

The learner can achieve practice in transfer through simulations and other devices, but what is really critical is the development of attitudes or habits of thought that make transfer an active rather than a passive process.[41]

Principle 6. If the material is organized, is meaningful to the learner, and contains familiar concepts, long-term memory will be enhanced.

Teachers are often occupied with communicating facts, concepts, principles, and skills. Therefore, it is essential that they understand the ways in which individuals learn meaningful verbal material. Teachers want to be assured that a certain part of what they teach is attended to and remembered. Hence, they must have some understanding about how attention and memory work.[42]

There are several different kinds of memory processes, and psychologists have offered a variety of theories. There does seem to be general agreement that once information is perceived by the learner, it is processed through a variety of channels before it actually is stored in long-term memory. Gage suggests an information-processing model:

> In this model, physical stimuli, such as light, heat, pressure, or sound are communicated to the sensory system of the person.
>
> The sensory system transmits the information to the short-term storage system.
>
> From here, the information is provided with enhanced associations, or sent directly to the coding system.
>
> From which it goes into long-term storage.
>
> Otherwise, if it is not coded, it is forgotten.[43]

The first stage of the model involves orienting responses, whereby attention is focused on particular stimuli. Specifically, since this is the "attention getting" phase, teachers should have in their collection of behaviors various methods that can be used to command attention. These methods can be based on knowledge about psychophysical, emotional, discrepant, or manding stimuli. Teachers must be cautioned to use these attention-getting stimuli sparingly, for overuse may cause loss of effect on learners. Techniques to elicit orienting responses must be used only to attract attention to *important* information or events.[44]

In the short-term memory stage of the model, learners often store information that they wish to keep available for only a few seconds. As an example, an individual looks up a telephone number that will not be needed again. Hence, it is placed in the short-term memory component, and immediately forgotten. While much of the information stored in short-term memory is quickly forgotten, forgetting serves a good purpose. Without it, the mind would be needlessly cluttered with useless information. If teachers value the information that is being presented and consider the information worthy of retention, it is their role to devise ways to combat this natural forgetting process. It must be remembered that nonretention is functional, natural, and universal; most of the specific facts that are taught will be forgotten.[45]

The long-term memory stage of the model is of critical importance. It is here that the material in short-term memory is processed into long-term storage. This is a relatively simple process, for it merely requires that the material is enhanced in some way or that it is held at the focus of attention for a period of time. The difficulty lies in the area of retrieval, for once the information is stored in long-term memory, the learner must be able to retrieve it when necessary.

Most of the empirical evidence on retrieval has some sound implications for teachers. As an illustration, it has been found that *organization* aids retention. Learning is substantially improved when concepts of wide generality are used to aid in subsuming less general concepts. Retrieval is aided by the *meaningfulness* of the material. Meaningfulness can be judged best by the number of associations possible to a given bit of information. Meaningful material may be very familiar or it could be capable of being organized in some logical way. At any rate, there is sufficient psychological research evidence to conclude that familiarity, meaningfulness, associations, and patterning are all efficient aids to learners when they are attempting to encode information so that, if needed, it can be retrieved. In essence, the richer the association network, the quicker the learning and slower the forgetting.[46]

Teachers can help their students through the development of a retrieval system. This can be done by relating what is new and unfamiliar to what is well-learned and familiar. Teachers should examine what they teach, and when new ideas or concepts are taught, they should be tied to things that are already understood. Teachers should remove unfamiliar material, where possible, or relate the unfamiliar to previously learned material.[47]

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[40] Kueth, *loc. cit.*

[41] *Ibid.*

[42] N. L. Gage and D. C. Berliner, *Educational Psychology* (Chicago: Rand McNally College Publishing Company, 1975), p. 135.

[43] Gage and Berliner, *op. cit.*, p. 135.

[44] *Ibid.*, p. 140.

[45] *Ibid.*, p. 141.

[46] *Ibid.*, pp. 146-147.

Summary

The purpose of this section was to examine six learning principles and to show how these principles can be used in promoting efficient learning. Based upon this examination, the following summary statements are offered as being of utmost importance for teaching the non-skill business education courses:

Learning is enhanced when the learning environment is tailored to meet the needs of each learner. Appropriate distribution of practice reduces the time required for learning and improves the learner's ability to remember. Learners can achieve satisfaction from a learning activity if they receive pleasure in the course of the activity, pleasure in completing the task, or pleasure in making progress toward a distant personal goal. Learners can best learn if they truly understand the material that is being taught. In some instances learning a concept or skill will aid in the learning of another concept or skill. Long-term memory is enhanced if the material is organized, is meaningful to the learner, and contains familiar concepts.

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[47] *Ibid.,* p. 150.

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IDENTIFYING, IMPLEMENTING, AND MAINTAINING RELEVANT BUSINESS EDUCATION PROGRAMS

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IDENTIFYING, IMPLEMENTING, AND MAINTAINING RELEVANT BUSINESS EDUCATION PROGRAMS

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CONCLUSION

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IDENTIFYING, IMPLEMENTING, AND MAINTAINING RELEVANT BUSINESS EDUCATION PROGRAMS

As one looks toward the decade of the 80's, it appears that educational institutions at all levels will continue to be affected by declining enrollments, social change, and technological advances. It also appears that as educational institutions face these changes, they will be obliged to cope, adapt or respond in an environment which will offer diminishing financial support. Under these conditions, educational institutions at all levels will be expected to be more prudent in the use of available resources and more adept in managing a variety of administrative and instructional processes.

The curriculum is at the heart of any educational institution. At the same time, the curriculum carries with it significant financial implications. The curriculum, for example, spells out facility, equipment, staff and other expense-oriented requirements. Additions and changes to curriculum are among those aspects of total school operations which must be carefully managed by educators.

A Program Development Process

A key idea concerning the program development process is the fact that it is just that—a process; one that may be thought of as having a number of distinct parts, phases or steps, and one which must be carefully managed. Viewing curriculum and program development as a process assures that distinct steps will be followed.

Four general phases in the program development process are illustrated by Figure 1 on page six.

A Philosophy of Program Development

All educational institutions have a philosophy to which they adhere. It is important that each institution also have or establish a philosophy relative to program development. Efforts should be made to communicate this philosophy to appropriate personnel. Central to an institutional philosophy of program development should be the concept that new programs are to be developed and implemented only after careful and deliberate investigations have been conducted since the direct and indirect costs associated with program failures are too great.

Not all program ideas will be implemented. A review of the feasibility studies and program development processes in business and industrial firms support the logic that a number of new program ideas will be discarded. A Booz, Allen, and Hamilton study of processes in fifty-one commercial firms revealed that only one in fifty-eight new program ideas is commercially successful.[3]

While institutional commitment to a logical approach to program development is important, it is perhaps even more significant that there be recognition of the close relationship that must exist between program development activities and the overall educational philosophy of the local educational agency, since the types of programs offered will be reflective of and in consort with institutional goals and objectives. Those who wish to propose new programs should consider such potential developments in the light of the district's attitude toward the types of programs which are thought to be desirable for the service area involved. For example, it may be fruitless to study the feasibility of a new occupational program if the district perceives itself as an agency which needs to provide exemplary programs for high school college-bound students or for post-secondary transfer students.

Articulation with other district programs is related to the issue of meshing new program possibilities with district goals and objectives. For example, in multi-campus districts, there may be a commitment not to duplicate programs. Thus, a proposal to add a data processing program on Campus A, while there is already a program on Campus B, would not likely be acceptable.

The Maintenance Aspect of Program Development

Program improvement concerns could involve developing totally new sequences, reviewing and restructuring existing sequences, deleting program components and/or deleting total programs. Many of the same principles apply. Both the general ideas and discussion presented will, along with the chapter bibliography, give the reader some direction as to alternate sources for further information and guidance in the program development process.

The Exploration Stage of the Program Development Process

This initial stage of the program development process begins with an idea that indicates an educational need that is not presently being met through the educational offerings available in the community. Most textbooks which address curriculum planning, methods of instruction, or principles and problems in business education skip the initial stage of program development and begin with selecting and organizing curriculum materials. The following focuses on the explorational stage in the curriculum development process.

Ideas for program change or development can come from a multitude of sources. Some of those sources are listed and illustrated on pages seven and eight.

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[1] Ralph C. Wenrich and J. William Wenrich, *Leadership in Administration of Vocational and Technical Education* (Columbus, Ohio: Charles E. Merrill Publishing Company, 1974), p. 149.

[2] Ibid.

[3] Wayne A. Lee and Joseph E. Gilmour, Jr., "A Procedure for the Development of New Programs in Post-Secondary Education," *Journal of Higher Education*, XLVII, No. 3 (May/June, 1977), p. 307.

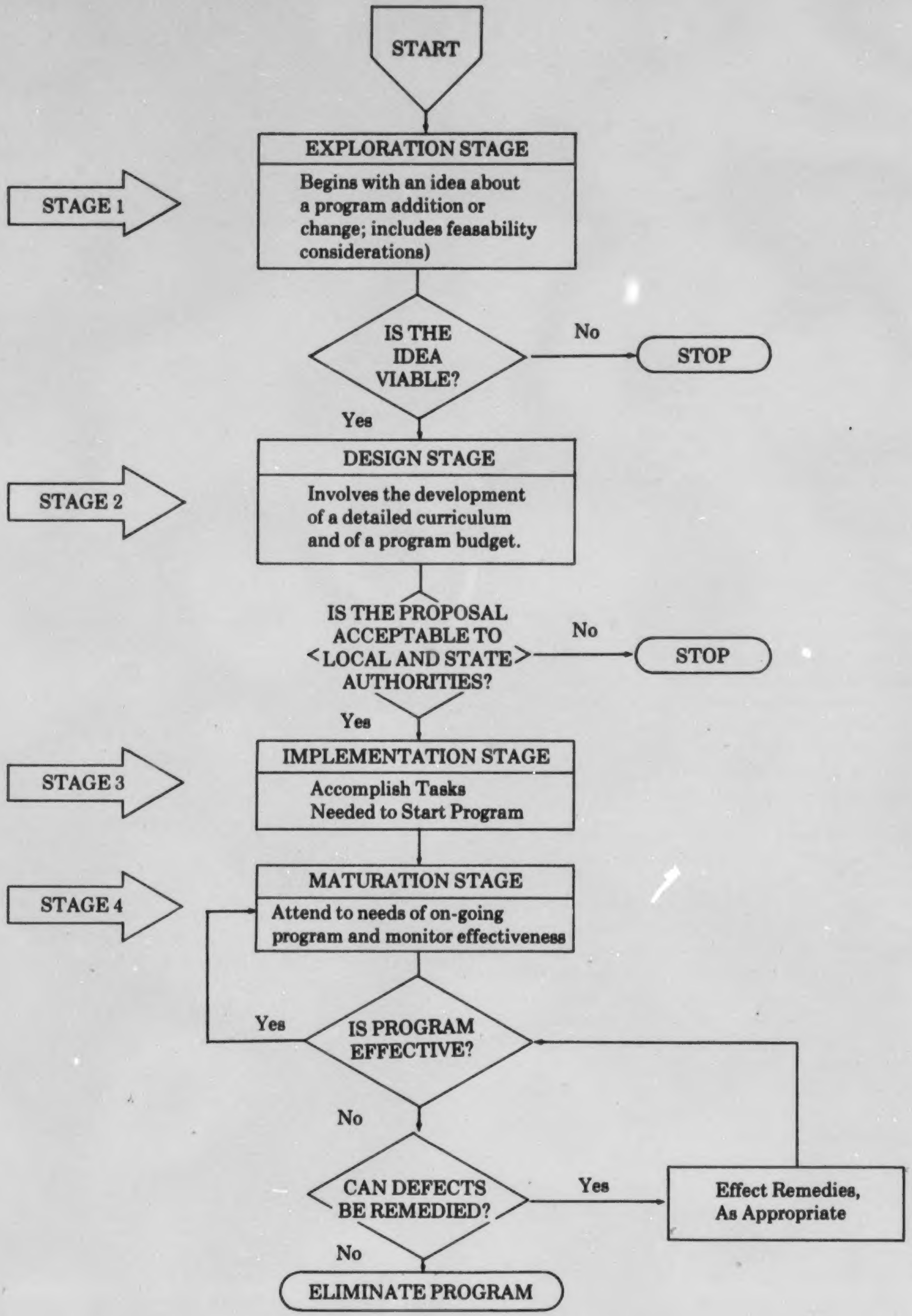
START
EXPLORATION STAGE
Begins with an idea about a program addition or change; includes feasability considerations)
STAGE 1
IS THE IDEA VIABLE?
No
STOP
Yes
DESIGN STAGE
Involves the development of a detailed curriculum and of a program budget.
STAGE 2
IS THE PROPOSAL ACCEPTABLE TO LOCAL AND STATE AUTHORITIES?
No
STOP
Yes
IMPLEMENTATION STAGE
Accomplish Tasks Needed to Start Program
STAGE 3
MATURATION STAGE
Attend to needs of on-going program and monitor effectiveness
STAGE 4
Yes
IS PROGRAM EFFECTIVE?
No
CAN DEFECTS BE REMEDIED?
Yes
Effect Remedies, As Appropriate
No
ELIMINATE PROGRAM

Figure 1
STAGES IN THE PROGRAM DEVELOPMENT PROCESS

Student Sources. Students currently enrolled in a program have vivid images and reactions concerning their experiences. Input from these students can be achieved by having student representatives on program advisory committees. Interest surveys administered to students at large can often yield useful information that will warrant consideration insofar as it might relate to program modification. Some students' input may be of limited value because of their limited perspective. This limitation does not negate the value of such feedback, however.

Former students can offer keen insight about possible areas for program change. Follow-up studies of graduates which are administered periodically after the student has completed a specific program gives added perspective from the student's having entered the world of work.

At the post-secondary level, many students leave without completing programs. Often, the reasons for premature departure are quite valid and do not reflect adversely upon the student, the program, or the institution. However, it is important for the institution to learn if students may have left because there was dissatisfaction with a program or the institution.

School Staff Sources. A great number of school staff can serve as sources of new program ideas. Faculty members are very close to a program and can spot strengths and weaknesses. They will have suggestions for improvements or changes.

Members of the student personnel services staff may also be in a position to make suggestions for program improvement or program development. Counselors, in particular, hear concerns or complaints of students in a rather direct way and, for this reason, might provide valuable information to persons with interest in or responsibility for program development. Interactions with counseling staff should, however, be managed carefully so that sight is not lost of the fact that it is the vocational educators who are the ones with the expertise in the development of occupational education programs.

Administrative personnel with their different perspectives may also be instrumental in providing ideas for changes in the overall program of the institution. Administrators' persual of enrollment trends, drop-out rates, average class sizes, student-teacher ratios, cost per credit hour, cost per pupil and of similar data will frequently suggest need for change.

All categories of school personnel are likely to be involved in professional association activities important to their area of interest and/or expertise. Involvement in such associations will provide opportunity to be exposed to professional journals, professional meetings and similar activities where issues, trends, and problems in the field will be discussed.

Community Resources. The input of members of the community can often be quite influential in shaping the overall program of an institution. The input from the community is more systematically obtained through parent meetings, through the participation of lay people on the local board of control, and through other mechanisms utilized by the local educational agencies; but, at times, a casual phone call to an administrator is all that it takes to spur investigation of a new program idea.

Representatives of business, industry, labor, government and the professions. Representatives of these groups follow developments in the field of education rather closely and have intense interest in both schools and their graduates. If properly managed and channeled, this interest can be utilized by local school personnel by including these representatives on advisory committees, by bringing them into the school as guest speakers, and by using community facilities as learning laboratories.

A number of post-secondary institutions have found relationships with professional organizations helpful in new program development ventures. Many national organizations have local chapters in cities; these chapters often have education committees which are ready to cooperate with local schools in a variety of ways. Groups such as real estate boards, banking associations, business and professional women's clubs and Chambers of Commerce, can offer a business person's point of view.

Others. A number of other persons within the educational community may serve as sources of ideas for program development. In Illinois, staff members from the Illinois State Board of Education, the Illinois Community College Board, or the Illinois Board of Higher Education may offer suggestions for program development or improvement through correspondence, conversations, or reports capsulizing the results of on-site visitations. Consultants from the Department of Labor may suggest program ideas and potential funding through the auspices of the Comprehensive Education and Training Act (CETA).

The "Scoping" Process

The "scoping" process is an initial effort in sifting or sorting out program or curriculum ideas. The scoping process identifies those components that seem to have potential. Ideas without merit are cast aside and unncesessary development costs are avoided. A committee may complete the assessment and may not involve a school administrator or local board of control until such time as it is important to seek and receive authorization to pursue the programs.

The Advisory Committee

The literature of occupational education has long advocated the use of advisory committees in the development and operation of vocational programs. Gillie, for example, suggests:

> If the program is to attain its maximum success, considerable involvement between the educators and the potential employers of the graduates is necessary.

> Ideally, there should be a more or less continuous exchange between employers and educators. The representatives of employers could contribute ideas to help keep the program relevant.[4]

Schools often operate with the assistance of an overall advisory committee, sometimes augmented by separate committees for each occupational area or program. At the post-secondary level, it is common to find schools utilizing separate advisory committees for each program and not having an overall advisory committee. Each local educational agency will typically have a policy or procedure outlining its posture on the subject of the role, function and structure of the advisory committee.[5]

Advisory committees are comprised primarily of persons external to the local education agency, usually employers who are likely to employ graduates of the school's program, and who are called upon to advise school personnel concerning the development of either specific programs or the total occupational program. Where appropriate, representatives of labor and certification or licensing agencies should be included. Falk states: "...it is strongly suggested that (program developers) effect a quick liaison with the relevant professional organizations and societies in the field." His experience in developing curricula for a community college "...makes it clear that the formula for program success would be incomplete if it did not include strong participations from such representatives."[6]

The Vocational Amendments of 1976 mandate that program planners bring advisory committees into operation and/or action in the early stages of exploring new program ideas. One or more members of the school staff, student personnel services, and current and/or former students should be included on the committee.

The Community Survey

When school officials and advisory committee members have determined that a program development idea has merit, a survey should be undertaken. This might be called a feasibility survey or work force needs analysis, but the data collection which will help a local school district reach an intelligent decision relative to a program proposal is the important outcome. Hennington indicates:

> In establishing the need for business education programs, a comprehensive study should be made of the employment area served by the school district. With the high mobility of business employees, the scope of business programs should reflect the needs of the broader job market that will be attracting the students. Employment trends for specific occupations should be obtained from national, state, and local sources.[7]

A committee of vocational education administrators echos Hennington's advice:

> Planning must be based upon reliable facts...The procedure is essentially the same whether a program is being introduced in a community which is without one, or an existing program is being extended, expanded or modified. The raw materials of planning are facts.[8]

Even though the nature of the program or curriculum may not have been fully developed at the time the survey is designed, planners must ascertain whether there will be jobs waiting for graduates of the proposed program.

Harris and Grede offer some cautionary advice to program developers who are in the process of preparing community survey instruments:

> ...it is essential that program planners understand the difference between need and demand, as used in manpower forecasting. Manpower 'need' speaks to national and regional 'goals'—tasks that society ought to undertake or modernization and up-grading that industry ought to be engaging in. 'Demand,' on the other hand, is concerned with actual job openings—with reality rather than possibility, with wage bills already budgeted and personnel directors ready to interview job applicants.[9](sic)

Lee and Gilmour concur when they say:

> Demand is a community's willingness to provide concrete support for a program by paying tuition and employing graduates. Demand contrasts with need, which is a lack of something desirable and which does not carry with it the implication that concrete support will be forthcoming...[10]

There are materials readily available to program planners in designing and implementing a community survey. Examples of "canned" or "off-the-shelf" assessment packages that can be utilized are the Illinois State Board of Education "Locally Directed

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[4] Angelo C. Gillie, Sr. *Principles of Post-Secondary Vocational Education* (Columbus, Ohio: Charles E. Merrill Publishing Company, 1973), p. 123.

[5] For a more complete discussion of the role and function of advisory committees, see: Sam W. King, *Organization and Effective Use of Advisory Committees* (Washington, D. C.: Office of Education, U. S. Department of Health, Education and Welfare, 1960).

[6] Charles F. Falk, "A New Frontier for Career Education: Developing Community College Based Programs in Material Management," *Illinois Career Education Journal*, Vol. 32, No. 3 (Spring, 1975), pp. 23-27.

[7] Jo Ann Hennington, "Developing Education for Business in the Secondary School," *Curriculum Development in Education for Business.* National Business Education Association Yearbook No. 15 (Reston, Virginia: National Business Education Association, 1977), pp. 77-108.

[8] *Organization and Operation of a Local Program of Vocational Education* (Columbus, Ohio: Instructional Materials Laboratory, The Ohio State University, 1968), p. 22.

[9] Norman C. Harris and John F. Grede. *Career Education in Colleges* (San Francisco: Jossey-Bass Publishers, 1977), p. 261.

[10] Lee and Gilmour, *op. cit.*

Evaluation"[11] materials, and the McKnight Publishing Company "Planning, Implementing, and Evaluating Career Preparation Programs" materials.[12] These materials can be readily localized, thereby producing meaningful information for individual districts.

Program planners must always be alert for well-meaning, but shallow commitments to new program ideas among members of the school community.

A Survey of Student or Consumer Preference

A sampling of student interest is essential when developing curriculum plans that will be acceptable and achieve success. McMahon provides caution to curriculum developers on this point:

> Curriculum must be developed to meet the needs of the student rather than the desires of the developer. No textbook theories or calculation formulas can replace the in-depth study of local interests, resources and economy, industry, finances, and the cultural and intellectual level of the student population.[13]

Wenrich and Wenrich suggest how to obtain consumer preference information:

> Direct survey questionnaires can be administered to a large number of potential vocational-technical students through high school classes, at public employment offices, at military release centers, or through the mail. Educational and vocational guidance counselors can provide reasonably valid feedback about students with whom they deal. Industrial personnel offices often have interest inventory information on the people who have applied for jobs in their companies, as do Veterans Administration Office, State Employment Security Offices, and a host of other government agencies, including various offices of the U. S. Department of Labor.[14]

Walls suggests that in addition "an effective curriculum should be based upon an analysis of desired behavior after graduation—behavior which should be defined in terms of what technology and industry need...Program developers may wish to make an assessment of behavioral characteristics sought by employers in the field for which the new program is contemplated.[15]

While the programs are primarily designed for the student, parents may greatly influence their sons and daughters; and, therefore, their perception of a program's need and worth may affect the ultimate approval of the proposed program. Wenrich and Wenrich offer a point of view about the role of the parent in the student survey process:

> In the final analysis, parents and other taxpayers in the community must be convinced that whatever programs are to be initiated are indeed needed and appropriate. For them to be involved in the process of arriving at decisions to make curriculum changes or additions may assure their support.[16]

Financial Concerns

A fundamental question that will ultimately arise within a school district is "Can we afford to implement this proposed program?" A preliminary budget will provide an answer to this question. A number of factors must be considered.

1. Facilities requirements. What facilities will be required for this new program? Are these facilities available within existing space inventories of the district? If existing space is suitable for a proposed program, what remodeling will be necessary? If not, can space be built? Or, can community-based facilities be leased?
2. Personnel requirements. What is the availability of personnel to staff the program? Is this a specialized area in which the number of qualified teaching personnel is limited and schools compete with industry for the services of available individuals? What other additional staffing needs will be associated with the new program proposal—secretaries, teacher aides, student assistants?
3. Instructional equipment and materials requirements. What equipment will be needed? Should it be leased or purchased? Are materials for the new program commercially available or will school personnel have to develop them?
4. Other considerations in preliminary budget development. What other expenses must be calculated for the purposes of arriving at a fairly close estimate of what the actual costs will be? What will the program's share of overhead—heat, lights, maintenance expenses, equipment repair expenses, personnel travel expenses, cost of office supplies—be?

Costs and/or budgets should be assessed with similar programs presently operated by the school district. These comparisons can be obtained through visits and communications with the directors of other institutions. Also, consultants should be involved in the program planning. In Illinois, ISBE/DAVTE provide consultants to local districts at no cost. Other sources might include area colleges and universities, especially those with occupational teacher education programs. Even though there is a cost for consulting services, it may be far less than the cost of serious mistakes committed by the local district.

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[11] Tim L. Wentling (Project Director), *Locally Directed Evaluation: Evaluation for Improvement* (Springfield, Illinois: Illinois Office of Education, Division of Adult, Vocational and Technical Education, 1976).

[12] Dwight Davis and Joe Borgen, *Planning, Implementing, and Evaluating Career Preparation Programs* (Bloomington, Illinois: McKnight Publishing Company, 1974).

[13] Gordon G. McMahon, *Curriculum Development in Trade and Industrial and Technical Education* (Columbus, Ohio: Charles E. Merrill Publishing Company, 1972), p. 2.

[14] Ralph C. Wenrich and J. William Wenrich, *op. cit.*, p. 157.

[15] Elizabeth Walls, "Developing Education for Business in Two-Year Postsecondary Schools," *Curriculum Development in Education for Business. op. cit.*, pp. 119-133.

[16] Ralph C. Wenrich and J. William Wenrich, *op. cit.*, p. 158.

Sources of revenue that may be available for new business education programs should be considered. A panel of vocational education experts working under a U.S. Office of Education contract cautions against implementing programs too large in comparison to the financial support available and suggests that "a quality program is much more likely to encourage the community to provide greater budgetary support in order to permit program expansion."[17]

Periodically, additions or modifications may have to be made in the interest of maintaining quality; yet, modifications may not produce more revenue for a school. An example might be the purchase of word processing equipment for use in an existing office education program. Members of the school's board of control or administrative staff may be reluctant to support a change of this type because it will generate no new revenue, while it will cause expenses to rise. Industry regularly makes this type of change in an effort to maintain efficiency. If a school fails to do likewise, the consequences will ultimately be evident as their students experience increasing difficulty in making the transition from the school setting into the world of work.

Making the Preliminary Decision About A Proposed Program

The outcomes of the work of the advisory committee, the data from community surveys, the response of prospective students, and the preliminary budget are normally consolidated by the program developer into a position paper or proposal which can be considered by the top administration and/or local board of control. If the local board acts favorably, approvals can be sought from applicable state agencies and coordinating boards.

It is not until a program proposal receives final approval from the board of control that the advisory committee for the new program would assume the status of a permanent body. Local procedures may create some exceptions to this general practice.

The Design Stage In the Program Development Process

After receiving approval for a new program, specific components must be identified. This identification process is known as the design or "detailed design" stage of curriculum development. Work on refinement of the curriculum may be done during the scoping process while awaiting results from community and student surveys.

Characteristics/Overviewing of the Design Stage

Program developers, as they determine the original program proposal, consider the areas of knowledge, facts, and generalizations which should be encompassed in the educational experiences being planned for the students.

As the program developers continue with further development of the program, more detail is added. Since the scope of the program already has been generally determined, it is necessary to deal with the questions of how this knowledge and these skills and generalizations will be organized for instruction and what shall be the sequence of experiences for students.

A variety of terms can be applied to curriculum proposal designs such as subject-centered or experience-centered, correlated, integrated, or fused; organized according to broad fields, major social functions, or centers of interest; and developed by cores, units, or problems.

Common Goals and Points of Difference

Regardless of the type of curriculum design, there are common elements in all proposals.[18] Because of the commonalities and differences of all program designs, a rationale should be stated which gives justification for the choice of goals, the intent of the goals, and an explanation of how the goals of the proposed program interface with other goals in the educational experience of the learner.

Finalizing Curriculum Objectives

Curriculum objectives should include specific student learnings and be related to class work and on-the-job experiences.

The establishing of meaningful objectives should be done cooperatively with faculty, administrators, advisory committee members, employers, and students. Some objectives may need to be individualized in the instructional process. Students may have unique objectives as well as objectives which are common for all students.[19]

Specifying Details of Curriculum

After all the objectives have been carefully stated, they should be sequenced into logical steps. Each goal has a condition, behavior, criteria, and rationale. Establishing criteria for student evaluation is the final step.

Measurable objectives need to be written for the program so that students know when they have successfully completed the performance opportunity. Small clusters of related activities are developed which lead to the desired terminal behavior. Integrating projects are placed at appropriate points in the training sequence. Specific exercises are planned to prepare the student to handle individual activities prior to dealing with them collectively in an integrating project. Instructional units are then designed to enable students to learn the specific knowledges needed to complete the related activities.

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[17] *Organization and Operation of a Local Program of Vocational Education, op. cit.*, p. 53.

[18] Florence B. Stratemeyer, Hamden L. Forkner, Margaret C. McKinn, and Harry Passow, *Developing Curriculum for Modern Living* (New York: Columbia University Bureau of Publications, 1963), pp. 85-110.

[19] For a thorough and relevant discussion of behavioral objectives applied to curriculum design work, see: Estelle L. Popham, Adele Frisbie Schrag, and Wanda Blockhus, *A Teaching-Learning System for Business Education* (New York: Gregg Division, McGraw-Hill Book Company, 1975).

Information sheets, assignment sheets, transparencies, and other instructional materials must be acquired or developed. Finally, methods of evaluating student performance using the established criteria for the determined objectives are designed. This sequence of tasks encompasses a competency or performance-based approach to curriculum design.

The Use of Models in Developing Local Curricula

A less theoretical technique that can be used to develop a detailed curriculum proposal involves a search for model curricula in similar institutions. Gillie recommends that "much can be gained from searching for a similar program since it is only on rare occasions when a college will be considering a program so new and innovative that no one else in the country has a similar one."[20] Factors such as modular scheduling, length of class periods, size of the institution, length of the calendar, etc. should be considered in making comparisons with other models.

Applying Relevant Research Findings

Gillie advises that "Until recently, very little curriculum planning has been performed by utilizing educational research," and recommends that "because of the rapid changes being experienced in just about all occupational areas, curriculum planning must be increasingly dependent upon sound educational research"[21] Naturally, research data of this type would be used to supplement, not supplant, the data which will come from the local community survey and student interest assessment efforts.

Articulation of the New Program with Other Programs Within or Outside the Local Education Agency

Articulation includes establishing policies and strategies to facilitate the free movement of students within and among institutions in order to implement their educational plans. It requires that the levels of education be related for ease of student progress. Clearly, articulation concerns are appropriate during the design stage of the program development process.

Encompassed in articulation decisions are: (a) validating prior educational experiences, including credit for non-traditional experiences; (b) agreeing upon course prerequisites and competencies which must be attained; (c) fostering opportunities for interaction between personnel of sending and receiving institutions; (d) establishing an articulation committee; (e) developing and publishing specific guidelines for transfer; (f) defining each institutional mission and departmental course objectives; (g) establishing procedures which will identify transfer problems; (h) developing guidelines for solving problems; and (i) developing a regional subject matter catalog and transfer requirements. How many of these problems or issues must be addressed during the design stage will vary from program to program, but awareness of the overall concept of articulated program for both program developers and advisory committee members is important.

If articulation has been an ongoing concern, working out agreements on the new program will be a routine matter. Six groups are typically involved in articulation agreements: faculties, institutional administrative officers, accrediting agencies, legislators, executive agencies, and national professional organizations.

Articulation provides benefits to students, faculty, and program planners. Carefully identified objectives in course content avoids duplication at the various levels. It also permits students to transfer without repeating objectives or leaving experience, avoiding wasteful duplication.

Determination of Methodological Components of the Curriculum

Much has been written about structuring programs around a variable time system and holding the required performance constant. In theory, this might be an excellent approach; however, if the length of the school day and school year are mandated, the programs must operate within these constraints.

Open-entry-open-exit is a plan frequently discussed, but the same constraints of a prescribed amount of in-school time may make this approach impractical. If instruction is planned on a modular system, and if administrative constraints are not prohibitive, students could enter a program of any type when this approach is used.

Cooperative educational experiences should be established in those communities where sufficient placement opportunities exist. Otherwise, simulation techniques may be used to approximate the the actual employment situation.

The Role of the Advisory Committee in the Design Stage

The advisory committee played an important role in the early stages of the program development process, and it should certainly have an ongoing role through the design, implementation and maturation stages of the process.

During the design stage, the committee helps to add detail to the rudimentary program proposal by: (a) writing instructional units and developing integrating projects; (b) examining instructional materials and equipment available and making recommendations for additional acquisitions; (c) developing instructional material; (d) obtaining outside speakers, organizing field trips, and reviewing ways of relating in-school experiences to the actual job; (e) establishing a communication link between the school and the community and developing placement opportunities; (f) conducting additional studies as needed; (g) developing program evaluation processes for use by students, teachers, administrators, and employers; and (h) developing a graduate follow-up program.

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[20] Gillie, *op. cit.*, p. 75.

[21] *Ibid*, p. 55.

The advisory committee is not a policy-making entity, however, and should not be considered as such. Even though nothing should be done without their help and approval, the final decision rests with the school administration.

Processing Refined Proposal for Final Approval

The costs associated with detailed program design work are substantial. For this reason, it is necessary for program developers to seek authority to proceed with the activity from high-level school officials and/or the local board of control. Each school district has its own internal system for approving new courses and programs. After being approved through appropriate local channels, the proposal frequently must be submitted for final approval by appropriate external agencies. Not until these approvals have been received does the program proposal move on to the next stage: the implementation stage of the program development process.

The Implementation Stage of the Program Development Process

Characteristics of the Implementation Stage

The program idea has been developed; the curriculum has become refined and specified; and the local board of control and appropriate state agencies have approved the new venture. Taking the steps necessary to translate the idea into a reality remains.

Influences Upon the Implementation Efforts

Implementation of new, or major modifications of existing business education programs will require more pragmatic, more creative, more student-oriented, more economically feasible, and more believable approaches in the 80's. Innovation and flexibility will be the basic requirements in the implementation stage. No longer can planners operate with the concept of "bigness is better," and it can probably be assumed that a conservative approach will be appropriate to the entire program development process.

Addressing Logistical Requirements of the Program

It is during the implementation stage that program developers seek to acquire and gather together the resources that will inaugurate the new program.

1. **Staffing.** Selecting the right personnel for the new program is probably the most important activity to be accomplished since the quality of faculty and support staff will quickly make or break the reputation of any program.

   Economic constraints and the likelihood of continued enrollment declines in most educational institutions may make it difficult for schools to add new personnel; retraining of existing staff to assume new or modified roles may be a requirement of the future. The suggestions of Hammons and others[22] may be helpful in preparing staff development activities.

2. **Facilities and Equipment Needs.** Innovative approaches will be necessary in meeting facilities requirements in the future. Increasingly, local education agencies will have to look to cooperative agreements with other agencies as a possible vehicle for use in meeting space needs if elimination of or cut backs in existing programs will not create spaces which can be converted to new uses. Adjoining districts may be able to cooperatively fund construction of facilities to be used jointly, much in the way the area vocational centers have been built in Illinois. A high school may find space or equipment available in a local post-secondary institution. Similarly, a post-secondary institution may find space or equipment available in local elementary or high schools. Business, industry, professional organizations, or branches of local government may also be tapped as possible sources that can be accessed in the quest for space in which to implement a program.

3. **Scheduling the Offerings.** Personal goals compete with educational goals. Often when a student must make a choice among these competing goals, educational pursuits will not be the first on the list of priorities. While this concept is starting to emerge on the high school level, at the post-secondary level in particular, institutions are being faced by growing numbers of "new learners" in higher education.[23] Such persons include women, minorities, older adults and others who previously have been underrepresented in higher education. New learners often have special needs and particular constraints relative to the times of day, days of the week, times of the year, and/or conditions under which they can avail themselves of educational opportunity.

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[22] Jim Hammons, Terry H. Smith-Wallace and Gordon Watts, *Staff Development in the Community College: A Handbook.* Topical Paper Number 66 (Los Angeles: ERIC Clearinghouse for Junior Colleges, June, 1978).

[23] For a more complete discussion on the subject of the new student in higher education, the reader is directed to K. Patricia Cross, *Accent on Learning* (San Francisco: Jossey-Bass Publishers, 1976).

To meet the needs of modern students, a greater emphasis may have to be given to individualized, programmed, independent, and highly mediated forms of instruction. Similarly, student needs may be addressed through special program opportunities articulated with other educational institutions—area vocational centers, for example.

4. **Student Recruitment.** The better the planning and development for the program has been, the easier it should be to identify and recruit students into the program. It will be difficult to communicate program purposes, objectives and strategies to students if the institution has not clearly decided for itself what these aims are to be.

   Care should be taken to assure that all selection criteria are devoid of elements which are irrelevant discriminators. Recent legislative clarifications of the rights of handicapped persons make it necessary that handicapped persons be given full consideration in selection processes.

   As an initial step after selection, some form of orientation should be given to students so that they know clearly the goals—both individual goals and the goals of the program itself—and their duties and responsibilities as program participants. Where practical, parents should be included.

   As many levels and types of educational institutions experience enrollment declines in the next decade, it will become clear that no one individual or group of individuals within an educational institution is or should be responsible for student recruitment. It is a shared responsibility.

Marketing the New Program

As education and educators were busy in the 1950's and 1960's "growing up," little attention was given to the style of operations, for substance and growth were all-important. During the 1970's, education and educators were often too busy defending their efforts from external attacks on the products of the school system to give proper emphasis to "selling" or "marketing" their programs. Kotler is foremost among the writers who have caused attention to focus upon the applicability of commercial marketing techniques to a variety of non-profit organization programs. Kotler advises:

> ...it should be clear that nonprofit organizations are involved in marketing whether or not they are conscious of it. They are involved in various markets and use certain operating principles in dealing with each market...[24]

Commercial marketing techniques hold potential for all levels of education, but perhaps offer the greatest assistance to post-secondary institutions where "prospective customers" have a wider range of educational alternatives from which to choose. Endorsement of commercial marketing techniques should not be interpreted as advocacy of blatent hucksterism. Indeed, the Carnegie Council on Policy Studies in Higher Education recently warned that "Increasingly desperate efforts to enroll and retain students in the 1980's and 1990's could accelerate the ethical deterioration already apparent in some parts of academic life."[25] Caution was signaled with respect to program development practices geared toward capturing a share of the shrinking pool of potential students.

> In admissions, the Council reported cases where colleges had recruited students for vocational programs that had not yet been developed or were already oversubscribed.
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> 'Many colleges are in serious need of students, and the students they are able to recruit are different than those of previous years—they are less able in basic skills, and a higher proportion of them are nontraditional students. In general, institutions are facing growing competition to attract such students and increasing diversity in what they must offer to meet such students' needs. This burden has caused some colleges to compromise their admissions responsibilities.'[26]

Naturally, most educators and most institutions want no association with the questionable practices about which the Carnegie people were concerned. Educators must recognize, however, that no matter how fine a program they may have designed, there will be difficulties in the implementation stage of program development unless or until effective communications are established with the target client group. It is in this realm that commercial marketing techniques can be of help.

During the 80's, there will be an opportunity for a change in style to include a public-awareness program which must include not only the target student group, parents, and the general public, but the business community as well. The awareness and support of the business community is an obvious requirement because this sector will take on the bulk of the output from both secondary and post-secondary business education programs as their employees.

The Role of the Advisory Committee in the Implementation Stage

Once a decision has been made to implement a new educational program, the role of the advisory committee changes in a number of ways:

1. The ad hoc committee becomes a standing advisory committee.
2. Members may volunteer to speak about the new program to prospective student groups. Mem-

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[24] Philip Kotler, *Marketing for Nonprofit Organizations* (Englewood Cliffs, New Jersey: Prentice-Hall, 1975), p. 9.

[25] Malcolm G. Scully, "Carnegie Council Detects Ethical Decay in Higher Education," *The Chronicle of Higher Education,* Vol. XVIII (April 23, 1979).

[26] *Ibid.*

bers may also include publicity material in trade and association publications.
3. Individual members may give advice and counsel to faculty and administrators.
4. The committee members may assist in the screening of applicants for the teaching staff.
5. The advisory committee members can and should continue to play an active role in assisting the local education agency.

Placing Program Graduates

The experiences of program graduates when they enter the employment marketplace will provide the best evidence of the validity of the program planning and the development efforts which have preceded this event.

The Maturation Stage of the Program Development Process

The program development actions necessary in this phase are typically those of meeting "maintenance needs" associated with a given program. Maintenance-type actions include, but are not limited to, the following: recruiting students, recruiting additional or replacement faculty, assuring a continuing flow of instructional materials and supplies, meeting equipment requirements, and assessing the need for expanded facilities, if appropriate.

The Role of the Advisory Committee in the Maturation Stage

The advisory committee's involvement diminishes markedly after a program is actually begun. There is a danger that in the maturation stage, active and vigorous advisory committees will degenerate and become stagnant. Involving the committee in the following activities may help in keeping the group active and thereby contributing to the program.

Assessing the Recently Implemented Program: A Quick Follow-Up

The short-term follow-up effort can serve the function of identifying any obvious mistakes and/or problems inherent in the newly implemented program. The techniques utilized include staff surveys, student feedback opinionnaires, and analysis of enrollment data. Interviews with teaching and support staff involved in the delivery of the new program can also yield information, ideas, or constructive criticism relative to successes or problems associated with the first several months of the new venture.

A comparative analysis of enrollment information, contrasting actual versus projected enrollments, should be particularly interesting and informative. In addition to concern for absolute numbers of students enrolled in the new program, attention can be given to the kind of students that the program has attracted. Reviews of program structure, program publicity or recruitment strategy, course scheduling, and/or delivery systems employed may be necessary if the program is not meeting its original needs.

Part of any enrollment analysis should be devoted to those individuals who may have dropped out of the program during the initial period of implementation. The fundamental issue in assessing the cases of program drop-outs is to determine if the factors leading to the loss of the student were within the control of the institution and, if so, what could have been done about it. Learning this should enhance the capabilities of the school for dealing more effectively with students still in the program and with those who may participate in the program in the future.

Follow-up activities are excellent vehicles through which the interest involvement of advisory committees can be maintained. Short-term follow-up studies might address the matter of what students may have learned from participation in the program. This could be accomplished by administering achievement tests before and after courses have been completed.

Irrespective of the form it might take, a short-term follow-up does not take the place of a more formalized and extensive system for long-run follow-up of educational programs. The "canned" pre-developed assessment packages that were identified as providing assistance in the development of community surveys are also sources of help relative to the structure of follow-up efforts.[27] [28]

The "More Formal" or Longer-Term Follow-up Study

Thompson advises that "It is almost universally agreed that information from and about students after they leave school is important in evaluating programs and planning for the future." He further suggests that "It is also almost universally agreed that the task of obtaining 'follow-up' information that is reliable, valid, and useful is a difficult one."[29]

A system of long-term follow-up of programs is one fundamental method through which educational institutions can meet accountability demands. Indeed, schools which receive monetary support for occupational education programs from the Vocational Education Act, as amended, are required to furnish information concerning program completions and student placements each year to appropriate agencies.[30]

A long-term follow-up system might call for each program to be given careful scrutiny every third year, every fifth year, or whenever it might seem appropriate to the administrative staff of the local education agency. A key understanding for program planners is that a systematic, on-going and long-run follow-up effort is a critical element in the program development process since the true merit of a program may not become clear until the passage of some time. Work force needs (nationally, regionally, or locally) have a way of changing from time to time. Thus, a program which may initially appear to be "on target" may become obsolete with the passage of time. This fact may not become known to program planners in a timely manner unless a formalized system of program follow-up is employed.

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[27] Wentling, *op. cit.*

[28] Davis and Borgen, *op. cit.*

[29] Robert J. Thompson, "Student Follow-Up and Program Evaluation Systems," *Evaluation and Accountability in Business Education.* National Business Education Association Yearbook No. 16 (Reston, Virginia: National Business Education Association, 1978), p. 115.

[30] Ibid.

Student Feedback

Determining the location and status of graduates is the main objective of a long-term follow-up study. The critical concern here is "Are the graduates functioning in an occupational area for which they have been trained and educated?" If the graduates are not functioning in an area correlated to that for which they have been prepared, then program developers should be interested in learning if this relates to deficiencies in the education and training within the program from which the students have been graduated.

Placement Records of Graduates

Perhaps the first piece of information which is examined in a long-term follow-up effort is the placement record of program graduates. This interest has two fundamental aspects. First, what is the trend in terms of the institution being able to place graduates in the jobs for which they have been prepared? If employers are increasingly less willing to take graduates from a given program, this may be an indication that there is dissatisfaction with the program or that the manpower needs for particular types of workers within the school's service area are changing. In either case, this is important information for program planners and developers.

The second aspect of interest relative to placement is the amount of money that employers are prepared to pay program graduates relative to that which they would be willing to pay an individual without such training. In short, can program graduates earn more as a result of the training? If not, then some questions naturally arise concerning the value of the program to the student and the merit of having educational institutions investing considerable sums of money in providing it. It may be that program participants do not gain short-term financial advantage in the work situation, but that opportunities for their advancement in the longer-run provide justification for a program or programs.

Reactions from Business and Industry

Receiving feedback and analyzing data from graduates can provide considerable information about the reaction of employers to programs and their graduates. The information from these two sources is, however, really inferential in nature. Better data can be obtained by including a survey of employers in a formal follow-up of programs. Hearing directly from employers may give program planners more precise and helpful information about perceived strengths and weaknesses of the school's programs.

The Cost-Benefits Analysis

Accountability in education demands that program costs be known. Advocating a concern for cost-effectiveness should not be taken as evidence of endorsement of the idea of schools avoiding or abandoning expensive programs and/or offerings. Instead, it is an endorsement of the notion that enlightened educational administrators and members of boards of control should know what their costs are.

Comparisons should be made with costs associated with other programs within the local education agency, and/or comparisons of similar programs in other institutions. Cost-benefit analysis allows all programs to be considered in a common context, a practice which should prove helpful to those with interest in vocational business education programs.

Promoting and Marketing the On-Going Program

Promoting and marketing of on-going programs are significant elements for success. For high school programs, where students typically have little choice concerning the institution they will attend, the challenge lies in having students choose one program from among many available within the school. There is a need for some mechanism through which information about program alternatives can be effectively communicated to these students.

At the post-secondary level the situation is somewhat different, and the need for marketing techniques is greater. The institution is concerned about attracting students since there are often many options open to the typical prospective post-secondary education student. For example, recent high school graduates may choose to continue their education in high school adult education programs, at a local community college, at a four-year college or university, in a proprietary school, in a apprenticeship training program, in the military service, in an on-the-job training program, through home study efforts, or not at all. Kotler's work as a potential resource for use in addressing the marketing and promotional needs of the on-going or mature program suggests that

> Marketing concepts can offer useful insights for responding constructively to major educational problems...By altering the product, offering an alternative product, and changing incentives, the institution might succeed in improving student views of the potential excitement or at least the value of the educational product.[31]

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[31] Kotler, op, cit., p. 9.

Many educators think it inappropriate to talk in terms of "marketing" their respective programs, preferring to disguise these efforts as "public relations." Though marketing may be needed more at the post-secondary level, there is interest in promoting high school-based programs since such efforts will help to reinforce a positive relationship in the community concerning the work of the school.

Many "marketing" efforts of post-secondary institutions are recruitment oriented. A recent publication of the College Board addresses this facet of educational marketing and offers suggestions especially useful to college and universities.[32] Since most schools are either publicly funded or seek community support through grants and donations, there is interest in "public relations" activities among all types of educational institutions.

A Guide to Public Relations for Junior Colleges[33] and *Recruitment Resource Manual: Or How to Effectively Promote Your Course*[34] give suggestions for marketing programs.

A variety of techniques can be used to promote and to market the maturing on-going program, including:

1. **Employer "Testimonials."** Obtaining testimonials from employers provides school personnel with a vehicle that can address competencies of program graduates, the need for people in the area served by the program, and the contribution such persons make to particular firms.
2. **"Success Stories."** The success story consists of a student speaking about the benefits that may have accrued to him or her as a result of participation in a given program. This may not be an effective device to use in publicizing the newer program since there will not yet be many graduates. In some situations, current students may be realizing successes that have promotional value for the program.
3. **Other Promotional Strategies.** It is important for school personnel to recognize the need for a somewhat continuous stream of publicity for their programs and to develop "promotional sense" or a kind of publicity consciousness. Do not overlook the opportunity to publicize and promote programs internally, perhaps through an in-house publication if one exists. Persons not directly connected with educational programs, such as custodians, clerks, food service personnel and the like, make effective spokespersons for "their school" if they are informed of new and emerging developments.

   In seeking avenues through which to promote a program, do not overlook the many business and professional associations which exist in most areas. Educational programs which are germane to the interests of their constituent groups will be publicized through their newletters.

Possible Decisions to be Made During the Maturation Stage

As a program matures and as follow-up data and experiences accumulate, a number of decisions concerning changes which might be appropriate in the program should be considered:

1. **The Scope of the Program.** Should the program be expanded? (If so, planners have to return to Step 1 in the sense that feasibility, cost, availability of staff, space, facilities, and other resources must be ascertained.)
2. **Review and Revision of Content, Methods or Materials of Instruction.** Initial assumptions concerning methods or materials may prove invalid and have to be changed in the light of experience with actual students. Similarly, technological advances and the availability of newly published materials and equipment call for a continuing re-examination of methods and materials.
3. **Augmenting Equipment and Other Support for the Program.** It is not uncommon to start a new program with a minimal of funds for equipment, supplies, and instructional materials and, if the program is successful, augument or "flesh out" the inventory. Decisions will be necessary as to what and how much is to be added.
4. **Dealing with the Unsuccessful Program.** No matter how astute the school has been in developing a new program, some new ventures are bound to fail. The decision has to be made as to (a) canceling the program in its entirety, (b) reducing the scope of the program, or (c) archiving the program—pulling the program from the curriculum for two, three, or five years until it can be successfully reintroduced. Obviously, this latter tactic should be employed only if it is believed that a program could be successfully reintroduced in the future. It is possible that a school could have developed the right program for the wrong time.

   Whatever course of action is chosen, the process of change must be carefully managed since this represents the type of issue which could carry with it tremendous negative public relations. Program planners should be guided in such situations by:

   (a) Having accurate and reliable data available upon which the decision can be based (enrollment trends, cost data, and the like).

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[32] *A Role for Marketing in College Admissions* (New York: The College Board, 1976).

[33] California Junior College Association, *Guide to Public Relations for Junior Colleges.* Monograph C-17 (Cincinnati: South-Western Publishing Company, 1971).

[34] *Recruitment Resource Manual: Or How to Effectively Promote Your Course* (New York: Gregg/McGraw-Hill, Inc., 1978).

(b) Making adequate provision for students who may be "in the stream" (presently participating in the program) to either finish the program or pursue other mutually satisfactory alternative courses.

(c) Keeping advisory committee members informed and involved at every step along the way. Most program planners will not want advisory members speaking in the community against some action which is planned by the local school for which they are advisors.

Every program planner should view the planning and development process from all facets, including the responsibility to seek out and eliminate unsuccessful programs. In a way, a school may have to take one or two steps backward, represented by the elimination of an unsuccessful program, in order to take two or three steps forward, represented by the addition of new or replacement programs to meet the emerging needs of the 80's.

Conclusion

The curriculum of a school, comprised of many individual programs of study, is of central importance as it provides a vehicle which an institution can use in its movement toward predetermined objectives. A school's curriculum must be a dynamic and flexible concept if it is to have the capability for adjustment to the ever-changing needs and interests of the community which the school serves. As one considers the potential social and technological forces which are promised for the decade of the 80's, it seems clear that schools will be called upon to modify their curricula by adding, changing, and perhaps deleting programs of study.

For educational institutions to effectively manage change, it is suggested that they must recognize the need for a systematized approach to making adjustments in their programs. Indeed, it is suggested that secondary and post-secondary institutions alike adopt a formalized program development process for this purpose. Such a process would comprehend activities and decisions necessary from the time an idea about a program is verbalized through and to the point where one is concerned about how to manage a mature program.

A formalized program development process allows for the step-by-step development of new programs as well as for some assistance for schools trying to deal with questions about modifying or eliminating existing programs. Perceived as central to the program development process, and as essential to its successful usage, is a dependence upon community data as a basis for decision making and the involvement of community persons through an advisory committee structure.

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Relevant Data Sources for the Development Implementation and Maintenance of Business Education Programs (Annotated)

The wealth of materials that have been written on the subject of program development, implementation and maintenance is such that it would be difficult to provide a complete listing of all materials which might be germane. Some of the following general sources of information and research data may provide assistance to those with a need or interest in pursuing specific topics of interest.

The National Business Education Association. This professional association provides a number of publications as a service to members and others with interest in business education. Portions of the following yearbooks of the NBEA may be of particular interest with respect to program development ideas:

Alternative Learning Styles in Business Education. No. 17 (1979)
Evaluation and Accountability in Business Education. No. 16 (1978)
Curriculum Development in Education for Business. No. 15 (1977)
Foundations of Education for Business. No. 13 (1975)

Though not a yearbook, another service publication of the NBEA could be useful:

Administration and Supervision of Business Education. (1978)

The yearbooks are $10.00 each, while the other book is $8.50. All can be obtained from the National Business Education Association, 1906 Association Drive, Reston, Virginia 22091.

The American Vocational Association. This professional association also provides a number of publications as a service to its membership. In addition to following, *VocEd: Journal of the American Vocational Association* (9 issues per year; $15.00 per year to non-members of the AVA), program developers may wish to consider other service publications of the AVA which are published from time to time. Two sources currently available and which might be useful to program developers are:

The Philosophy for Quality Vocational Education Programs. Melvin Barlow, editor. 1974.

Comprehensive Planning for Vocational Education: A Guide for Administrators. Carl F. Lamar, editor. 1979 ($12).

These materials can be obtained by writing to the AVA, 2020 N. 14th Street, Arlington, Virginia 22201.

ERIC Clearinghouse on Adult, Career and Vocational Education, and *The National Center for Research in Vocational Education.* Both of these organizations are located at The Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210 and periodically produce and disseminate materials of interest to program developers and curriculum planners. A copy of the product list can be obtained by writing both organizations. Materials are generally modestly priced.

State education departments. Offices in most state education departments frequently produce and disseminate a number of publications which would be of interest to program planners and program developers. In Illinois, a number of useful materials are available from the: Department of Adult, Vocational and Technical Education, Illinois State Board of Education, 100 North First Street, Springfield, Illinois 62777. A particularly useful product of this office is:

> *Locally-Directed Evaluation: Evaluation for Improvement.* Tim L. Wentling, Project Director, 1976.

Universities. Institutions of higher learning are often important sources of data because of the products which they produce under research contracts. Information about such products can be obtained by writing to the bureaus of research which operate on most campuses. Persons may become aware of such material by reviewing journals within the field in as much as products of university research are usually reviewed, reported upon, or advertized therein. Universities are also important sources of data because of the useful information which is developed through doctoral theses. Such materials can be monitored by reviewing *Dissertation Abstracts* which is a publication available in most libraries of significance. Complete copies of relevant dissertations can then be obtained through Xerox University Microfilms, Ann Arbor, Michigan 48106.

BUSINESS EDUCATION STUDENTS WITH SPECIAL NEEDS

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BUSINESS EDUCATION STUDENTS WITH SPECIAL NEEDS

PUBLIC LAW 94-142
  Definitions of Handicapped
  Disadvantaged Students
  Least Restrictive Environment for the Handicapped Students

IMPLEMENTATION OF PUBLIC LAW 94-142
  Individualized Education Program
  The Role of the Business Educator

INTEGRATING STUDENTS WITH SPECIAL NEEDS...
  Integrating the Deaf Student
  Integrating the Blind Student

PERSPECTIVES ON MAINSTREAMING IN BUSINESS EDUCATION

REFERENCES CITED AND SUGGESTED READINGS

BUSINESS EDUCATION STUDENTS WITH SPECIAL NEEDS

The business teacher, having successfully withstood the essential changes in teaching methodology required by various educational trends such as individualized instruction, team teaching, behavioral objectives, and competency-based teaching, now faces a challenge which may make these previous educational changes seem minor by comparison. This new challenge is mainstreaming. Unlike previous educational trends, mainstreaming will not affect the classroom teacher on a gradual or voluntary basis. Public Law 94-142: Education for all Handicapped Children Act of 1975 became effective in the 1977-78 school year, and its effect was immediate and nonvoluntary.[1] The primary goal of this legislation is to provide free, appropriate educational opportunities for all handicapped individuals who require special education services.

Because of the far-reaching effects of this law and the need for immediate implementation, it is crucial for all business educators to become thoroughly familiar with the law and its provisions, as well as the implications for needed changes in methods, materials, and classroom techniques. The Illinois State Legislature, as well as legislatures of other states, is currently studying legislation which will require teachers seeking certification to complete course work in the psychology of exceptional children.

Business educators have always had the responsibility to design instruction to meet the needs of each student in their classes. The Vocational Education Act of 1963, and subsequently the Vocational Amendment of 1968, clarified the responsibility of vocational educators for providing appropriate skills and knowledges to students with special needs.

Thus, moral responsibility has now been converted into legal responsibility for school districts and, indirectly, for their faculties. Since 1973, three public laws with a common core of "Mainstreaming" have been enacted. Consequently, providing business education programs for students with special needs will require extra effort on the part of the regular classroom teacher. The first stage of that special effort consists of becoming familiar with the historical and philosophical bases for the educational integration of handicapped children.

Public Law 94-142: Education for All Handicapped Children Act of 1975

There are three important public laws which affect students with special needs. Although Public Law 94-142 overshadows the other relevant laws in public awareness, the business teacher should become familiar with these other laws. Briefly stated, Public Law 94-482: Education Amendments of 1976 requires that vocational training shall be accessible to persons of all ages in all communities—including handicapped and disadvantaged persons. Additionally, funds are to be made available for this purpose. Public Law 93-112: Rehabilitation Act of 1973 provides protection from discrimination based on a handicap in programs or activities which receive federal funds.

By the fall term, 1978, handicapped students were enrolled in some business education classes. Public Law 94-142 mandated that each state provide a "free and appropriate education" for every handicapped child between the ages of 3 and 18 by September 1, 1978. By 1980 the law will cover handicapped children through age 21.[2] The business teacher should expect to teach a variety of types of handicapped students which are defined in Public Law 94-142 as follows:

> Handicapped children are those who are identified as mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, or multihandicapped. Also included are children having specific learning disabilities who because of those impairments need special education services.[3]

Definitions of Handicapped

The following definitions of the handicapped as cited in AMICUS[4] should be of help to business teachers in preparing for implementation of the law in their own school districts.

Mentally Retarded. The mentally retarded child possesses a significantly subaverage general intellectual functioning which exists concurrently with other deficits in adaptive behavior and is manifested during the developmental period, adversely affecting the child's educational performance.

Visually Handicapped. A visually handicapped child possesses an impairment which, after correction, adversely affects a child's educational performance. This category includes both partially sighted and blind children.

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[1] John Ryor, "Integrating the Handicapped," *Today's Education*, 66:26, September-October, 1977.

[2] NEA Reporter, "How the Law Will Affect You: A Guide to the New Handicapped Act," (National Education Association, Washington, D.C.), Vol. 16, No. 7, p. 6.

[3] Ibid.

[4] AMICUS, National Center for Law and the Handicapped: 2:21-22, April, 1977.

Seriously Emotionally Disturbed. Seriously emotionally disturbed children are defined as exhibiting one or more of the following characteristics over a long period of time and to a marked degree: (1) an inability to learn which cannot be explained by intellectual, sensory, or health factors; (2) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (3) inappropriate types of behavior or feelings under normal circumstances; (4) a general pervasive mood of unhappiness or depression; (5) a tendency to develop physical symptoms of fears associated with personal or school problems. This term includes children who are schizophrenic or autistic. Children who are socially maladjusted but not emotionally disturbed are not included in this category.

Orthopedically Impaired. An orthopedically impaired child possesses a severe orthopedic impairment which adversely affects his educational performance. The term includes impairments caused by congenital anomaly (clubfoot, missing fingers or limbs), impairments caused by disease (polio, bone disease), and impairments from other causes (fractures or burns which cause contractures, amputation, cerebral palsy).

Other Health Impaired. Other health impaired children are those with limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.

Hard of Hearing. A hard of hearing child possesses a permanent or fluctuating hearing impairment which adversely affects his educational performance but is not included under the definition of deaf.

Deaf Handicapped. A deaf child has a hearing impairment which is so severe that the child's hearing is non-functional for the purposes of educational performance.

Speech Impaired. The speech impaired child has a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment which adversely affects educational performance.

Definitions of Disadvantaged

The "disadvantaged" are not covered under this legislation. In order to differentiate between the "disadvantaged" and the "handicapped" the following definitions are provided.

Disadvantaged.

Disadvantaged persons shall be identified by one or more of the following criteria or other similar documented criteria:

Economic Disadvantaged.

Student needs financial assistance in order to complete vocational program and/or courses.

1. Family income is at or below national poverty level;
2. Participant or parent(s) or guardian of the participant is unemployed;
3. Participant or parent of participant is recipient of public assistance; or
4. Participant is institutionalized or under State guardianship.

Economic disadvantaged can be determined by reporting students at the secondary level who are participating in a free or reduced lunch program, AFDC (Aid to Families of Dependent Children) program or work-study program. Students at the postsecondary and adult levels may be identified from basic education opportunity grants records or similiar financial aid.

Acadamic Disadvantaged.

1. Lacks reading skills for the vocational instructional materials as determined by appropriate standard evaluation instrument. (Usually 2 grades below grade placement)
2. Lacks writing skills. (Usually 2 grades below grade placement)
3. Lacks mathematical skills, etc. (Usually 2 grades below grade placement)
4. Performs below course level and cannot achieve in regular occupational instruction without supportive service as determined by standard evaluation. (Usually 2 grades below grade placement)

Academic disadvantage can be determined at the secondary level by reporting students enrolled in remedial programs, or performing below grade level on standardized tests or failing a grade. For the postsecondary and adult levels, an academic disadvantage can be determined by reporting students enrolled in remedial instruction or on academic probation. *Substantive evidence of Disadvantage must be kept on file.*

Limited English Speaking Ability. Limited English speaking ability means any member of a national origin minority who does not speak and understand the English language in an instructional setting well enough to benefit from vocational studies to the same extent as a student whose primary language is English. Some examples of national origin minorities are Mexican, Portuguese, Vietnamese, Chinese and Puerto Ricans. The chief administrative official shall determine the method and the staff persons responsible for making the identification. *Substantive evidence of Limited English Speaking Ability (LESA) condition must be kept on file.*

Limited English speaking ability persons vary in the degree of English proficiency in the areas of understanding, speaking, reading, and writing. To assist in student identification and in delivery of services, the following levels of English language proficiency developed by the Illinois State Board of Education, Bilingual Section may be used:

Persons with limited English speaking ability may be identified on the basis of language fluency:

I. The individual does not speak, understand, or write English, but may know a few isolated words or expressions.

II. The individual understands simple sentences in English, especially if spoken slowly, but does not speak English, except isolated words or expressions.

III. The individual speaks and understands English with hesitancy and difficulty. With effort and help, the student can carry on a conversation in English, understand at least parts of lessons, and follow simple directions.

IV. The individual speaks and understands English without apparent difficulty but displays low achievement indicating some language or cultural interference with learning.

Least Restrictive Environment for the Handicapped Student

The business teacher, in reading the above definitions, can easily determine why special techniques and methods will be necessary in order to successfully implement Public Law 94-142. However, the average business teacher should *not* expect to find all students with the previously listed handicaps suddenly being mainstreamed into business classes. The act requires only that all handicapped students be identified and provided with a free public education in "the least restrictive environment." For severely handicapped or multihandicapped students, the "least restrictive environment" may continue to be the special education classroom. The act does, however, insure that some handicapped students will be mainstreamed into the classrooms of business teachers who have had little or no training in instructing the handicapped.[5] These handicapped students will present challenges to the regular classroom teacher who is unaccustomed to teaching partially sighted, deaf, or physically handicapped students. With proper preparation and an understanding of the mandate, both handicapped and non-handicapped students can be served.

Implementation of Public Law 94-142

The business teacher who is teaching in schools which have taken steps to accommodate students with special needs must understand the role of the regular classroom teacher. There are two basic elements in this role: that of teaching and that of consulting.

Individualized Education Program

Public Law 94-142 requires that an IEP (Individualized Education Program) be developed for each child receiving special education. A specific definition of an IEP is included in the Act as follows:

> A written statement for each handicapped child developed in any meeting by a representative of the local educational agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of handicapped children, the teacher, the parents or guardians of such child, and whenever appropriate, such child, which statement shall include (A) a statement of the present levels of educational performance of such child, (B) a statement of annual goals, including short-term instructional objectives, (C) a statement of the specific educational services to be provided to such child, and the extent to which such child will be able to participate in regular educational programs, (D) the projected date for initiation and anticipated duration of such services, and appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved.[6]

Since the business teacher will be involved in the planning and implementing of the instructional program for the particular business course in which the handicapped students are enrolled, the teacher should make every effort to participate actively in the development of the IEP's. This active participation will help to insure that unrealistic or unreachable goals are not established for those phases of the students' programs which include the business teacher's area of expertise. The IEP is not a binding contract but does serve as the specific guide for the student's education. Furthermore, planning appropriate instruction is crucial if handicapped students are to achieve their highest level of skill in the particular business classes involved. A side benefit of active business teacher participation in the writing of the IEP is the opportunity for working directly with the special education personnel, the student's parents, and the administration. Direct communication will help to prevent misunderstandings or confusion on the part of all parties involved.

The Role of the Business Educator

One facet of the role of the business educator—or any other teacher—is to provide information to appropriate persons for the identification of students

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[5] "Schooling the Handicapped," NEA Reporter, (National Education Association, Washington, D. C.), Vol. 16, No. 7, p. 4.

[6] Public Law 94-142, *Education for All Handicapped Children Act*, November 29, 1975, Sec. 4, a, 19.

Funding Timetable

Each business teacher should be aware of the funding timetable established through provisions of Public Law 94-142 so that implementation of any necessary program changes can be made in accordance with federal statutes. The following information was obtained from Sections 611(a) and 611(b) of Public Law 94-142.

Year	Funding	Mandate
1977-78 (October 1, 1977 to September 30, 1978)	The first allocation was made, using 5 percent of the national average expenditure per pupil and the general funding formula.	A free appropriate public education had to be guaranteed for all handicapped children, ages 3-18, for the state to continue receiving federal funds.
1978-79 (October 1, 1978 to September 30, 1979)	Funding formula used 10 percent NAE*	Same as above
1979-80 (October 1, 1979 to September 30, 1980)	Funding formula used 20 percent NAE	A free appropriate public education had to be guaranteed for all handicapped children, ages 3-21, for the state to continue receiving federal funds.
1980-81 (October 1, 1980 to September 30, 1981)	Funding formula uses 30 percent NAE	Same as above
1981-82 (October 1, 1981 to September 30, 1982)	Funding formula uses 30 percent NAE	Same as above

*National Average Expenditure

with special needs. The major parts of the teacher's role, however, are those traditionally associated with helping students to learn—instructing and evaluating students. However, assisting students with special needs will probably require that the teacher reexamine methods, materials, motivational devices, and evaluation techniques.

Diagnosis. Two vitally important elements essential to the development of the IEP are those of diagnosis and task analysis. The task analysis is based upon the interpretation of the diagnostic reports pertaining to the handicapped student.

The individual with special needs must first be identified, tested, and evaluated for learning according to the diagnosis of the special need. Once the diagnostic reports are adequately interpreted, the development of an appropriate program begins. Acting cooperatively, the business teacher, special education resource persons, and other key professional staff members begin the process of planning the educational program for specific individuals. The basis for the planning is the development of the learner's profile which includes information about the student's learning strengths, weaknesses, and occupational interests.

Task Analysis. Inherent in the development of an IEP is the need for the business teacher, with help from other professional educators, to realistically assess methods, media, and even content pertinent to any given course or occupational cluster. For the first time, business teachers may realize that not every student needs to, or should, complete every part of any one course. For example, a totally blind student cannot proofread typewritten production or write manual shorthand. However, many blind persons earn their living as transcription typists or secretaries.

A study must be made of available resources and the competencies required for work in today's society. Each individual program for a special needs learner is planned, implemented, and evaluated by a team composed of representatives from the aforementioned areas of expertise. Periodic assessment of the learner's progress is used to provide information not only of educational gains but of the status of the handicapping condition.

According to Phelps,[7] a career cluster analysis is similar to a job or task analysis. The planners are identifying skills, knowledges, and basic competencies to be incorporated into the individualized instructional plans for the learner. Thus, the team must identify tasks and the essential knowledges and skills necessary for the performance of the task within designated occupational clusters and/or courses. Additionally, the team must determine the competencies and the levels of competency that can realistically be achieved by the special needs student.

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[7] L. Allen Phelps, *Instructional Development for Special Needs Learners: An Inservice Resource Guide,* Normal, Illinois: The Illinois Network of Exemplary Occupational Education Programs for Handicapped and Disadvantaged Students, p. 121.

Instructional Planning. Lesson planning, although advocated by educational authorities for many years, may be a chore that experienced teachers perform in a perfunctory manner. However, specific plans for teaching the special needs learner are essential. Phelps posited that:

> "Instructional planning involves the developing and sequencing of specific modules or units of instruction. Planning is the step in which the information gathered from the previous activities...the learner assessment information...the available resources...and the job analysis information are all combined to develop an appropriate sequence or series of units that will lead to the attainment of entry employment and independent adult living skills."[8]

Additionally, Phelps[9] stated, "The critical components of an instructional module for a special needs learner will include:

1. **Performance objectives** which specify the occupational concepts, skills, and competencies to be learned.
2. **Basic skills/concepts** which specify the basic competencies to be developed by the learner *prior to or during* the instruction.
3. **Basic skill/concepts content** which identify the specific basic skills and concepts involved in the task, which can be taught by the special education or basic academic instructional staff.
4. **Instructional activities** which describe the specific experiences the teachers and learners will undertake in both occupational and basic or special instructional situations.
5. **Instructional resource materials** which will be used as part of the instructional activities.
6. **A checklist system for monitoring student attainment** of the performance objectives and basic skills/concepts in the module.

Integrating Students with Special Needs into Business Education Classes

One of the most pressing problems confronting the business teacher is the question of where and how to obtain information on mainstreaming, current teaching materials, and lists of resources necessary for the successful teaching of special need students in the regular classroom. A list of teaching materials and of resources which are available on a national and/or local basis for use by the business teacher is included in Appendix C. Most material has been selected because of the special emphasis on the secondary school student.

Because of the immediate implementation of Public Law 94-142, many business education and special education teachers are unaware of the capabilities of many handicapped persons in relation to personal and vocational competencies.

The integration of two types of special need students are examined in this chapter. In the past, students with these handicaps were frequently educated in special residential schools. For this reason, suggestions have been included for special materials and/or methods for integrating deaf and totally blind students into the traditional classroom.

Integrating the Deaf Student

In the past, deaf persons have been called the "forgotten people." Their training has been largely limited to nonverbal jobs; and despite high intelligence level of some deaf persons, frequently they were forced to work in menial positions.[10] Public Law 94-142, however, is changing that situation. It is unfortunate that legislation for the deaf has been so long in coming. As long ago as 1965, President Lyndon Johnson stated:

> Deafness need not be regarded as the handicap that men thought it was in the past. Given the opportunity to learn and prepare themselves, the deaf can fill a wide array of useful and important positions in industry and professions throughout our society.[11](sic)

The key words in that quotation are "given the opportunity." The mainstreaming legislation has made it possible for deaf students to be "given the opportunity" for vocational training in the regular business classroom. Business teachers, with little or no training in teaching the deaf, must use the training they have—that is, the ability to design instruction for individual differences. The deaf student who can lipread can receive vocational training in typewriting, office machines, and nonskill courses such as accounting, data processing, and marketing.[12]

Definitions and Characteristics of the Deaf and Hearing Impaired. Public Law 94-142 describes two categories of hearing impairment, deaf handicapped and hard of hearing. While the deaf category includes impairments which are so severe that the sense of hearing is considered to be nonfunctional, the hard of hearing category includes impairments which vary greatly in degree. These variances in degree of hearing impairment must be recognized and understood by the business teacher.

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[8] Ibid., p. 182

[9] Ibid.

[10] James Pfister, "College Program for the Deaf," *Business Education Forum*, 27:39, December, 1972.

[11] Robert Frisina, "New VoTech Opportunity for Deaf Students," National Technical Institute for the Deaf, *American Vocational Journal*, 1970, p. 33.

[12] Ibid.

According to Kirk,[13] the deaf handicapped category includes two distinct classes which are based upon the time the hearing loss occurred. These classes are:

1. Those who were born deaf (the congenitally deaf).
2. Those who were born with normal hearing but became deaf because of accident or illness (the adventitiously deaf).

Similar distinct classifications exist in the hard of hearing category as follows:

1. Those with mild hearing loss who have a 20 to 30 decibel loss in the better ear in the speech range.
2. Those with marginal hearing loss who have a 30 to 40 decibel loss in both ears.
3. Those with moderate hearing loss who have a 40 to 60 decibel loss in both ears.
4. Those with severe hearing loss who have a 60 to 75 decibel loss and retain what is known as residual hearing.
5. Those with profound hearing loss who have greater than 75 decibel loss and cannot use hearing to understand language even with the aid of amplification devices.

In addition, the degree of handicap will depend upon the degree of hearing loss, the age of onset, and the type of hearing loss.

The methods or techniques utilized by the business teacher will, of course, be based upon all three factors. For example, a student with a mild hearing loss may require no other specialized attention than seating near the teacher and an increased volume of verbal instructions. The student with a severe or profound hearing loss, on the other hand, may need to rely solely on lip-reading, sign language, visual instruction, and note taking. The deaf student, however, experiences a much more severe problem. Because speech is never heard, the deaf student may have great difficulty in acquiring speech and language skills. The inability to hear frequently is accompanied by deficiencies in reading ability, vocabulary skills (both oral and written), and speech development.

Guidelines and Specialized Strategies. Despite the wide range of possible hearing handicaps described above, there are certain general strategies which would be helpful in almost any teaching-learning situation involving deaf or hearing impaired students.

A major problem experienced by deaf students is their inability to view visual aids such as blackboard or overhead projector screen and lip-read verbal instructions from the teacher simultaneously. The business teacher, through conscientious effort, can use these visual aids whenever needed if he/she learns to face the class and give the necessary verbal instructions for lipreading purposes. The wise business teacher does not spend a large amount of time with his or her back to the class anyway and has developed the technique of observing students while presenting material. A bonus benefit from this technique may be increased comprehension by nonhearing impaired students in the class.

Another problem associated with deaf students is their tendency to incorrectly interpret certain words and directions. This results in part from a limited vocabulary and in part from a tendency to take instructions literally. For example, in accounting the term *liquid assets* would need to be defined in detail for a deaf student who might be picturing containers of water. Again, a side benefit of integrating deaf students into regular classes is that it forces the teacher to speak distinctly and to make all meanings and shades of meaning clear to all students, deaf or not.

Special Aids. Various teaching aids have been developed for use by deaf students, and these should be utilized by the business teacher. Captioned slide and tape packages can be developed so that the key points of the audio tape are typed at the bottom of the slide for the deaf student's use. This method can be easily adapted for any slide-tape presentation in any business course.

The problem of returning the carriage when the bell rings can be solved with the use of a special bright light which flashes so that the deaf student can return the carriage with eyes-on-copy technique. This visual aid is not complex to design and can be adapted economically to any electric typewriter.[14]

The business teacher can learn simple sign language gestures for repetitive instructions given daily. The deaf students will undoubtedly be delighted to share their knowledge in order to help the teacher master some simple gestures. In this way, the business teacher can demonstrate willingness to learn and a genuine desire to help the student succeed.

Business teachers who wish to integrate deaf students into their classroom successfully should consider the following conclusions drawn by Kupsh based upon her experiences with deaf students:

1. The hearing-impaired students hold much opportunity for success—both in my classes and in the vocational world—even though certain problems do exist making both the teacher and the student put forth that extra effort.
2. Most hearing-impaired students try extremely

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[13] Samuel A. Kirk, *Educating Exceptional Children,* (Boston: Houghton Mifflin Company, 1962), pp. 152-153.

[14] Joyce Kupsh, "Working With Hearing-Impaired Students," *Journal of Business Education,* 52:114-116, December, 1976.

hard and frequently exert more patience for detailed types of work than do hearing students.

3. Typing can be used as a tool for communication; however, since most deaf students have written language problems, they should not be encouraged to think of typing itself as a vocational goal. Deaf students tend to be poor proofreaders and should, therefore, be guided toward statistical typing and machine calculation which require preciseness with numbers rather than the English language.
4. Classes need not be geared to the deaf at the expense of the hearing majority; however, many times the special teaching methods or materials developed for the deaf can actually benefit the hearing students as well. In any case, the inclusion of special techniques for hearing-impaired students has no discernible effect on hearing students.[15]

Integrating the Blind Student

Guidelines and suggestions for teaching blind students were presented by Morton[16] for developing personal or vocational skill in typewriting and machine transcription. These guidelines were developed from a study of 40 totally blind transcription typists who were gainfully employed. The identified skills and knowledges used by the transcription typists were observed as the participants performed on the job.

The term blind was defined to mean persons whose visual loss indicates that they can and should function in their environment chiefly through the use of the braille system, audio aids, and special equipment necessary for them to pursue occupations effectively without the use of residual vision.

The guidelines and other suggestions were based on the assumption that the blind student is capable, mentally and physically, of acquiring transcription skills. The guidelines and suggestions were based on the following tasks and knowledges found to be necessary in the functioning of one or more of the transcription typists.

The types of dictation materials transcribed included the following: medical reports, memorandums, letters and envelopes, columnar materials, social case narratives, business reports, dialogues or interviews, minutes of meetings, and organizational charts.

Printed forms were typed by 29 employees; 17 used letterhead paper and envelopes. Forms containing ruled lines were typed by 16 employees; 14 on forms with fill-in areas. One transcription typist had mastered lined forms with boxes.

Skills needed for performance by some of the typists included checking machine adjustments, correcting errors with tape and/or liquid, collating and decollating forms, centering and underscoring, tabulating, editing and re-recording dictation, photocopying, using magnetic media typewriters, filing, typing stencils, answering telephones and recording messages, acting as receptionists, operating switchboards, and training new employees.

Guideline 1. The blindness of a student should not be minimized or emphasized—it is a fact about the student which must be accepted as are individual characteristics of other students. An awareness of when the student can and should be independent is essential. Blind students must be encouraged to think and act independently insofar as possible. However, the student cannot ignore his/her need for help in instruction or in the accomplishment of some tasks which require sight as a testing device. Therefore, part of the training—from beginning to end—must be the building of the realization that there is a proper time, person, and place for seeking help.

Directions to the blind student must be more explicit and descriptive than those given to the sighted. Tangible devices can be constructed to exemplify that, which to those without sight, remains abstract. For example, forms can illustrate the concept of tabulation as the student can feel the space between words in various columns, visualize a column, and read the context of the form. A copy of typewriting can also be prepared by pasting strips of cardboard on paper to represent the words in columns. The form closely resembles the size of the finished product. Through explanation, and touch, the blind child can be helped to mentally visualize spacing in relation to tabulation, backspacing, and horizontal and vertical placement. In addition, learning will be more meaningful for the student who understands both the content and the form of that which is to be typed.

Unless there is a definite reason for not expecting the same standards as from sighted students, the blind child should be encouraged to perform on the same level and compete on the same grading scale as sighted students. An example of one instance in which it is not possible for a blind student to complete a task in the same amount of time as others is in the setting of margins. The counting of strokes and verifying the correctness of the line length necessarily make this a slower process.

Guideline 2. Typewriting instruction provided blind students in the elementary level of typewriting should include correct fingering techniques for the keyboard and a thorough knowledge of service mechanisms. In addition to learning the correct fingering on the alphabetic and numeric keys, the blind student must be helped to develop correct habits for use of the following: backspacer; carriage return; repeat key; margin release; tab bar or key; tab clear and set keys; paper release; paper bail; tension adjustment controls; and the linespace control lever.

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[15] Ibid.

[16] Margaret A. Morton, "Vocational Education Needs of Blind Machine Transcribers," Unpublished Doctoral Dissertation, The University of North Dakota, Grand Forks, N. D., May, 1972, pp. 126-146.

Students in the elementary stages of typewriting should become familiar with one way to (1) check straightness of paper insertion; (2) set margins; (3) correct errors; (4) estimate the stopping point on a page.

Freedom of hand action should be encouraged in the early stages of typewriting so that students will become used to exploring and discovering various parts of the typewriter. As the keyboard and other parts of the typewriter are introduced, the student should feel these in relation to the whole typewriter.

Estimating the point at which no more should be typed on a page will vary, naturally, with the physical features of the typewriter used by the blind student. However, a definite mark seems more desirable than dependence upon position of the paper in relation to the platen. The problem in estimating the amount of paper in relation to the platen arises when students do not check frequently, and when doing so, find that the paper has entirely disappeared behind the platen. The question then becomes, "How much paper is behind the platen?" and a definite stopping point remains undetermined. The teacher should explore the backside of the typewriter with the student to determine whether there is a separation in the chassis, a brand name or trademark, a cord, or a ventilator grill. Then, the student should establish an appropriate point of reference. If no identifying points can be located, a small piece of tape can be positioned so that when the paper reaches the tape the student knows exactly how many more lines can be typed without violating typewriting style.

The setting of margins should include the actual determination of the point of setting margins and the verification of the line length between the left and right margin. If the paper guide is positioned at the extreme left side of the typewriter, a sighted person must determine the number of spaces between the edge of the paper and the point where a key will strike the page. For example, on some typewriters there are 15 spaces between the left edge of the paper and the point where a letter can be printed. Thus, the student would start counting from 15 when spacing forward to set the left margin.

Paper insertion for blind students should be taught in the same manner as it is taught to sighted students. However, blind students should be taught to determine whether or not the paper was inserted into the machine straight. If typewriters are used which have raised markings which can be felt for location of the paper guide, the student should be taught to place the paper guide at zero. Otherwise, the student should place the paper guide at the extreme left position.

Students should be taught to correct errors with correction tape. (No transcription typists were found using erasers.) The number of times that a key must be struck, when using correction paper and when striking the proper key, will depend upon the quality of the correction paper and the typewriter paper which are being used.

Guideline 3. Personal organizational skills should be developed through the coordinated efforts of the teacher and the student. Blind students should be encouraged and trained to organize thoughts, speech, learning materials, and supplies. As the memory load for course work could make learning seem an impossible task, the blind student must be made aware of the benefits to be gained from organizational structures: making fewer trips to gather forgotten materials and supplies; taking notes which are concise and clearly stated; and communicating with greater understanding. The retention of knowledge should be easier because of the analysis and restatement processes.

The blind student should be encouraged and trained to organize thoughts and materials in the following ways: (1) Instructions to students must be clearly, concisely, and completely stated in logical order. (2) Supplies or other transcription materials should be positioned in the same place and/or marked with braille until placement patterns are memorized. (3) The student should be aided in the development of routines for the following: checking machine adjustments; checking paper insertion; setting margins; brailling information; and remembering the point of interruption.

When special instructions for typewriting are given, the following pattern should be used: (1) The teacher should orally read or state instructions. (2) The student should, in concise form, restate the directions. (3) The student should make a braille copy of the instructions for future reference. If the student was unable to restate the directions in concise form, further clarification is required through student/teacher discussion of the procedure until the student is able to state and write brief, comprehensive directions in his own verbal style.

In addition, the teacher should analyze the directions to determine the proper placement of items on the brailled instructions. For example, the description of a form on which the date and complimentary close are to be typed at the same horizontal position may give placement information in vertical order. However, a notation made that a tab for the complimentary closing should be set at the point where the date begins should not be made in the same order as information may have been presented. The notation should be made at the point where instructions were given as to the placement of the date.

Students should be taught to place each type of paper supply in a particular section or partitioned office-type desk drawers. If the classroom is not equipped with office-type desks, the student should be provided a desk tray with five or six compartments. The student should learn to place paper in the tray compartments in a manner similar to the placement of supplies within a desk. Ordinarily the top of the paper should be placed in a position so that when one sheet is removed, it is ready for insertion into the typewriter, i.e., the letterhead is at the bottom, faced away from the student.

Materials for correcting errors should be stored in an easily accessible part of the drawer, or tray. Students should develop a habit of placing the correction tape face down at the edge of the typewriter, or if plastic attachments for tape storage may be used on school equipment, these should be placed on the front of the typewriter.

Guideline 4. In traditional school programs, the acquisition of vocational competence for initial employment as a machine transcriber will require approximately two years of instruction for blind students. This would be supplementary to the typewriting training previously received as a basis for written communications.

Students who were taught typewriting primarily as a tool of communication should be enrolled in a one-year, elementary-level typewriting course in either the ninth or tenth grades unless the following basic skills have been acquired: setting margins; setting and clearing tabulator stops; straightening paper; determining the stopping point on a page; typing business letters of different styles; typing simple tabulation problems; typing manuscripts, reports, and business forms; and centering materials to be typed.

Students who have previously developed vocational typewriting competencies should be examined for typewriting proficiency before enrollment in a two-year vocational office-education curriculum at the eleventh- and twelfth-grade levels of secondary school, or a two-year stenographic curriculum at the post-secondary level. The blind student should also be tested for proficiencies in language arts, spelling, and knowledge of the business communications usually learned in the elementary typewriting course.

If deficiencies are noted, it may be advisable for the student to enroll in a high school elementary-level course of typewriting to increase his/her knowledge of background information. Students who lack knowledge and skills usually incorporated into the subject matter of typewriting, but who can type rapidly and accurately, should omit the period during which the keyboard is introduced in typewriting classes and perform remedial tasks in other areas of deficiency.

Guideline 5. Typewriting instruction at the vocational level of skill development should refine skills previously learned and provide opportunities for the learning of the following: estimating margin stops; estimating the stopping point on a page; typing of printed and lined forms; typing multiple carbon copies; figuring tabulation problems; using the variable line spacer; typing from voice-writing equipment; typing duplicator masters or stencils; cleaning the typewriter; changing ribbons; and typing from direct dictation.

Tabulation problems should be taught utilizing the arithmetic method. A habit of recording the spaces which must be counted from the left margin to set necessary tab stops for forms which may be typed in offices should be established. In addition, a braille copy of the problem should be provided. If materials are recorded on tape or dictated by the teacher, the blind student must listen to the entire problem and attempt to determine the longest items within columns. Therefore, except to gain acquaintance with the process of figuring tabulations from taped material, students should not have to solve complex tabulation problems. The probability of typing these in the office situation is reduced because of the length of time required for the listening and problem-solving process.

For students who apparently have *not* grasped the concept of columnar materials, a braillon facsimile of the problem should be prepared for visualization purposes. For example, one may cut pieces of cardboard to represent columns. These are pasted in position on a sheet of standard-size typewriting paper. Through a heat process, multiple copies of this can be made for use by more than one student.These copies are ordinarily reproduced by agencies providing special services for the blind. If only one student is to be served, the original sheet with the cardboard pieces is sufficient. This type of pasteup is also useful for teaching margins and letter parts as well as different letter styles.

Estimating margins can be accomplished in different ways that are basically dependent upon the typewriter. If visible, hand-set margin setting devices are used, the student can estimate placement of the margin set by placing the fist against the edge of the line-space indicator and then moving the margin stop so that it touches the fist.

The point-of-print indicator on some typewriters is spaced so that it is 1½ inches from the lower edge of the cardholder. Thus, if the paper guide is at zero, the margins may be set at the printing point after moving the edges of the cardholder to the edge of the paper.

Blind students can be taught to estimate the approximate stopping point on a page by repeatedly feeling the amount of paper above the paper bail until a sense of distance is acquired. This consumes less time than reaching to the back of the typewriter each time the transcriber needs to check.

Learning to type lines or fill-in forms requires the assistance of a sighted person. Specific information about vertical or horizontal placement of the lines of fill-in areas, as well as the subject matter to be placed at particular points, must be noted. The form to be typed must be analyzed and explained line by line so that braille directions may be recorded. Starting at the top of the form, the exact number of spaces down to the first line of typewriting should be counted. Additional information to be brailled will include what is to be typed on each line, whether alignment with a ruling or a heading is required and whether any tab stops are necessary. If tabulations are necessary, the number of the line should be noted and the exact number of spaces from the left edge of the paper for each tab stop must be brailled.

Blind students can be taught to use the variable linespacer for judging distance in the same manner as sighted students. Prior to the use of the variable line-spacer for typing on lined forms, the use of the variable spacer for superscripts should be taught and the use of superscripts should be explained to the student.

Blind students should be encouraged to feel the typewriting impressions on stationery to determine: the position on line; the need for a new sheet of carbon paper; the exactness of underscoring; and the appropriate setting for the impression control.

A routine should be established for remembering what had been typed when an interruption occurs. Individual preference will determine whether the student stops at the end of a word, completes a sentence, spaces after the word, or stops typing before adding a space at the end of the last word typed.

Guideline 6. The vocational office education curriculum of the blind student machine transcriber should parallel the basic pattern provided the sighted student when preparing for the acquisition of suitable employment and when acquiring the foundation for advancement. The following topics, as course units, or courses, should be common to the training of both blind and sighted students:

1. Interpersonal relationships—personal qualities; human relations; receiving callers; and office etiquette.
2. Employment opportunities—seeking, acquiring, and retaining a position; adjustment to the job; and finding opportunity for advancement.
3. Business organizations—principles of office organization; structures of business organization; and activities of the office.
4. Communication skills—telephone and telegraph; letter and report writing; scheduling appointments; proofreading and verifying information; transcribing; giving and taking instructions; and record keeping.
5. Office machines—copying; fluid, stencil, and offset duplicating; 10-key adding machines; electronic desk calculators; and voice-writing equipment.
6. Filing—storage and protection; transfer; disposal; records retention schedules; and systems of filing.
7. Reference sources—library services; books; and special agencies.

Guideline 7. Blind students should have a special unit of instruction introducing machine transcription. The teacher should throughly explain and demonstrate the machine transcription process in addition to guiding the student's exploration of the voice-writing equipment.

The material to be transcribed by the blind student should be read aloud to the student to provide opportunity for discussion of unfamiliar elements of the typewriting procedure or of the vocabulary contained in the communication. Arrangement should be made to provide the introduction to machine transcription at a time when there is opportunity for uninterrupted periods of time.

1. The teacher should read each sentence to the student.
2. The teacher should determine whether the student understands words which may be unfamiliar.
3. The student should be asked to spell aloud words frequently misspelled or which were unfamiliar to him/her.
4. The student should braille correct spellings and definitions of words which occur frequently and with which he/she was unfamiliar.
5. The placement and style of the communication should be discussed.
6. The student should be guided in preparing braille directions for typing special styles or on particular forms.
7. The way to preview a belt for the following purposes should be explained: to determine length of items contained on the belt; to note corrections or changes to be made; and to clarify poorly enunciated dictation.
8. The student should be directed to preview the belt once before typing the communications recorded on it.

To mark indicator slips for the use of blind students, a hole may be punched with a pen, letter opener, or a similar object at the point of correction or length indication so that rough edges of the hole can be easily felt.

Guideline 8. The vocational education of blind transcriptionists should include continuous learning of the following language arts skills until proficiency has been developed: spelling, punctuation, grammar, syllabication, and word selection. Previewing subject matter and reviewing the transcribed materials of blind students will provide constant exposure to language arts skills.

Guideline 9. Business education teachers should solicit the cooperation of other teachers in developing the skills which form the basis of transcription: typewriting, listening, language arts, organization, and problem-solving. Through cooperative efforts by teachers of different subjects, vocabulary development, correct spelling, and fundamental skill in English usage can be correlated with typewriting skills. Specifically, the terminology peculiar to a given subject can provide subject matter for the teachers of reading, spelling, and typewriting. As written assignments are typed by blind students, teachers of other subject areas can require correct spelling, word usage, grammatical construction, and accuracy of typewriting from blind students.

Guideline 10. Students should acquire listening skills for the following purposes: to aid in more detailed comprehension of the spoken word; to develop the ability to discern correct usage and word selection; to acquire skill in estimating lengths of communications to be transcribed; to develop the ability to distinguish between homonyms; and to enlarge their vocabularies. Special materials should be dictated for the following purposes: to determine whether students understand the vocabulary used; to prepare the students to listen to poorly enunciated dictation; and to ascertain students' proficiency in word selection.

Guideline 11. Blind students, especially, should be observed to ascertain whether additional training or counseling is essential in any of the following areas: mobility; social habits, especially eating habits; personal grooming habits; selection of suitable styles of clothing; social orientation; and scriptwriting, at least the ability to mark with a pen or pencil.

If deficiencies are noted, the business teacher should inform guidance counselors or resource personnel of the specific problems. If other personnel are not available for consultation and remedial direction, the business teacher should attempt to help the student. Mobility skills can be strengthened in the classroom if the student is required to move about the room rather than remain seated at a desk waiting for another student or the teacher to bring necessary material to him/her.

Social orientation of shy students should be encouraged by arranging a variety of contacts in the lunchroom and at business club functions. Personal counseling by the teacher, in addition to classroom discussions of grooming and fashions, may be effective.

Guideline 12. Students should be made aware of the fact that on-the-job training periods will vary in accordance with the adaptive skill of the trainee, the technical nature of the vocabulary, and the provision for in-service training of employees by the employing institution. Blind students who lack adaptive ability or who are deficient in any of the areas of transcription skill should be counseled to attend a post-secondary institution for further training.

Guideline 13. Vocational guidance must be based on a realistic assessment of the physical and personality traits of the individual in addition to the capabilities of the blind student as a skilled transcriptionist.

Perspectives on Mainstreaming in Business Education

The following statement should be required reading for every business teacher who is in the process of forming an opinion on the value of mainstreaming:

> They (the handicapped) are different. They trouble us in deep, unexplainable, irrational ways. We would like them somewhere else—not cruelly treated, of course, but out of sight and mind.[17]

Dr. Martin, through this statement, was attempting to describe the historical response of our schools and society to the needs of the handicapped. The basic concept of special education programs in the past tended to ignore certain facts concerning handicapped individuals. The handicapped student, upon graduation, *will not* live in special neighborhoods or work in special occupations in special work organizations. The handicapped student, probably *will not* marry another handicapped person, become the parent of a handicapped child, or have only handicapped friends. The handicapped student will, in other words, be living in and attempting to function successfully in normal society rather than in some special, segregated society.

These facts formed the basis for the legislation which guarantees that the handicapped student will no longer be "out of sight and mind." Whether the business teacher agrees or disagrees with the mainstreaming concept is not the crucial question. The crucial question is, of course, how the classroom business teacher, with limited special education training, will satisfy both the letter and the intent of the law. Individual teachers would not, in good conscience, attempt to exclude any student from their classes because of a student's physical or mental deficiency. Rather, concerned teachers hesitate to teach those subjects or students which they are not qualified to teach. The reason for this, of course, is that they desire to provide the best quality education that they are capable of providing for *each* student in *each* class.

Business teachers have been trained to base instructional strategies, subject matter content, time allocations, and standards upon the ability levels of *all* students, however varied, in a particular class. The fact that this varied group will now contain handicapped students need not be an unsolvable problem but rather a new challenge to business teachers in their attempts to provide quality business education for *all* students.

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[17] Edwin Martin, "Some Thought on Mainstreaming," *Exceptional Children*, Volume 41, No. 3 (November, 1974), p. 150.

The challenge to business educators is composed of several basic problems which should be resolved in the 1980's. One stems from the lack of formal, integrated educational background providing the essential knowledges required by vocational and special education resource teachers. The problem is thus one of preparation for business and special education teachers that will enable each to understand more clearly the educational needs of special students.

Another problem stems from the fact that teachers, parents, resource persons, and administrators may lack knowledge concerning the special materials and methods which are necessary for some students with special needs. This can result in the selection of inappropriate materials, methods, and motivational devices.

In addition, teachers also need continuous inservice education to help in the expansion of their knowledge base and to upgrade instructional skills in teaching a variety of handicapped students.

Lack of preparation time is a problem which should be addressed in the 80's. At present, school district personnel may not be aware of the time at which a student with special needs will enter a particular school. Therefore, the preparation of an effective IEP is delayed rather than being compiled and ready at the time the student enters.

With the move to individualized educational programs for students with special needs, some authorities believe that this move will carry over to development of IEP's for all students. Thus, a move to competency-based education and individualized instruction for each student will create a problem for teachers unless monies are available for a reduction in class sizes.

Another problem is that of developing a network of materials and an informational exchange of teaching techniques. During the 1980's, the solution should be found through research to develop materials and methods and to disseminate these materials to appropriate teachers and special education resource persons. At present there is no comprehensive store of knowledge readily available to business teachers or their resource teams. The fragmentation of knowledge inhibits the teacher's ability to find solutions to problems involved with the teaching of children with special needs.

Can business teachers, untrained in dealing with handicapped students reach this goal? The answer appears to be a "qualified" yes. The answer is qualified by the following conditions:

Yes, if class size is controlled so that each student, handicapped and non-handicapped, receives the necessary individual instruction.

Yes, if all available special education resources and personnel are used by the business teacher.

Yes, if the necessary funds are made available for purchasing special materials and equipment.

Yes, if the individual districts provide the mandated in-service training for each teacher involved in mainstreaming.

Yes, if outside consultants are available for counseling the instructional planners who are unschooled in special aspects of the student's needs.

And finally, yes, if business teachers search out all possible resources, including their own patience, imagination, and determination to succeed.

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Cox, Ruth. "Typewriting Instruction for the Handicapped," *Journal of Business Education*, Volume 50, No. 7 (April, 1975), pp. 277-278.

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Arementrout, Susan L., and Ralph Ruby, Jr. "Accounting and the IEP's of P.L. 94-142." *Journal of Business Education*, Volume 54, No. 7 (April, 1979).

The authors present an explanation of an IEP and the accounting teacher's role in its preparation. A proposed model is also presented for individualizing an introductory accounting course.

Cioban, Christine. "Teaching the Blind and Physically Handicapped to Type," *Business Education World*, May-June, 1972.

In this article, the author discusses the importance of effective typewriting instruction for the blind and handicapped student. The importance of teacher preparation, counseling and orientation sessions, and proper equipment are stressed. Specific techniques and methods are described.

Clark, Audrey. "Teacher Attitudes Toward Integration of Children with Handicaps," *Education and Training of the Mentally Retarded*, Volume 11, No. 4 (December, 1976).

This article explores the attitudes of teachers and administrators toward mainstreaming before it was implemented in a California school. More importantly, the author describes the attitudes and resultant changes after four years of integrated classrooms.

Cox, Ruth. "Typewriting Instruction for the Handicapped." *Journal of Business Education*, Volume 50, No. 7 (April, 1975).

This article describes essential considerations in the teaching of typewriting to the handicapped. Teacher training, choice of typewriter, placement of copy, and appropriate methods are examined.

Gladis, Paulette. "Mentally Handicapped Progress at the Keyboard." *Journal of Business Education*, Volume 48, No. 5 (February, 1973).

The focus of this article is the teaching of typewriting, with a language arts approach, to educable mentally handicapped students. The author describes the use of color-coded keys for keyboard location.

Kupsh, Joyce. "Working with Hearing-Impaired Students," *Journal of Business Education*, Volume 52, No. 3 (December, 1976).

In this article, the author lists specific techniques, methods, and equipment needed to teach hearing impaired students in the regular business classroom. Among the aides described are captioned slide packages, signed videotapes, and sign language for the business teacher.

McDonald, Loretta, "Curricula Offerings in Business Education in Schools for the Deaf," *Balance Sheet*, Volume 52, No. 2 (October, 1970).

The article describes business curriculum offerings in schools for the deaf in the United States. The information contained in this article should be useful to business teachers in designing programs for the deaf and hearing impaired.

Panagoplos, Nicholas. "Mainstreaming Exceptional Students in the Typewriting Program," *Business Education World*, Volume 58, No. 1 (September-October, 1977).

This article describes a successful program for mainstreaming educable mentally retarded (EMR) students in typewriting. Methods and materials, as well as scheduling requirements, are discussed in detail.

Richardson, Nina K. "Teaching Typewriting to Students with Missing Fingers," *Century 21 Reporter*, Spring, 1979.

This article contains specific information on teaching typewriting to handicapped students. Different combinations of finger loss are described along with the appropriate substitute for successful keyboard coverage.

Roberts, Bonnie. "Making It Into the Mainstream," *Teacher*, Volume 93, No. 4 (December, 1975).

This article provides answers to questions such as:

1. How do I teach handicapped and non-handicapped students in the same classroom?
2. What methods do I use?
3. Why should *I* do it?

Specific answers to these questions along with *specific* guidelines are given.

ORIENTATION AND EXPLORATION IN THE BUSINESS, MARKETING AND MANAGEMENT OCCUPATIONAL AREA

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ORIENTATION AND EXPLORATION IN THE BUSINESS, MARKETING AND MANAGEMENT OCCUPATIONAL AREA

ORIENTATION

INTRODUCTION

COURSE CONTENT

METHODS OF TEACHING

COURSE TITLE

EVALUATION

TEACHING AIDS

ORIENTATION AND EXPLORATION IN THE BUSINESS, MARKETING AND MANAGEMENT OCCUPATIONAL AREA

Introduction

It is recommended that each program in the business, marketing and management occupational area include an orientation course, usually at the 9th grade level varying in length from nine-weeks to a semester. The purpose of this course is to provide students with information which would acquaint them with the various careers, and levels within each career, in the occupational area. The course would also acquaint students with a variety of business career opportunities and options and give them a broader basis upon which to make career decision. Hands-on experiences should be utilized to assist students in the further development of their self concept and to match personal interest and abilities to a tentative career choice. An orientation course is not intended to develop a high level of skill but should provide students with knowledge and information concerning coursework available to them in the sequential programs available in the local school. Course content should also provide in-depth information on educational and attitudinal requirements for the various levels of business careers.

Course Content

Since this course is designed to provide organized experiences which assist individuals in making informed and meaningful occupational choices, it should provide occupational information and instruction pertaining to a broad range of business occupations. It should not be limited to an overview of those business careers with which students are most familiar, nor should content be subject oriented—nine weeks of shorthand, nine weeks of typing, nine weeks of bookkeeping/accounting, and nine weeks of office machines. Units of instruction which might be included in such an orientation course are:

- Orientation to the world of work
- Necessary training/education for employment in the occupational area
- Exploration of the types of work performed in the occupational area
- The role of women and men in today's society
  - Working conditions
  - Salaries or wages
  - Employment trends
  - Business organizations and associations
  - Desirable work habits
  - Applying for work
  - Personal dress and grooming
  - Self understanding
  - Interpersonal relationships
  - How work relationships affect personal fulfillment

The course content should vary from community to community since specific input is closely related to to the resources of the community. Orientation of students should be to those occupations found within the employing community.

Methods of Teaching

Essential components of this orientation course include hands-on-experiences, planned field trips, scheduled use of resource persons, individualized study, and liberal use of visual aids. Actual participation in the type of work done by persons currently employed in this field may also be included.

A team-teaching approach might be utilized for this course. The business teacher would provide the business content with other occupational instructors providing content relative to that specific occupational area (Agricultural, Health, Home Economics and Industrial).

Course Title

The title of this course might be one of several similar titles which are currently in use. These titles include: Orientation to Business, Marketing and Management Occupations; Orientation and Exploration in the Business, Marketing and Management Occupational Area; Orientation to Business Occupations; Orientation to Careers; Orientation to Occupational Education; Careers; Career Information, etc. The same content may also be included as part of a full-year course such as Basic Business, General Business, Introduction to Business, or Business Principles and Management.

Evaluation

Since the major objective of such an orientation course is to provide students with experiences which would enable them to make an informed and meaningful career choice, evaluation of the course would be based on the ability of students to make such a decision. Students may need additional time to make career decisions; however, the objective would be met if students are given assistance in furthering this type of decision making.

The remaining pages of this chapter contain a list Of publications, films, filmstrips, cassettes, student activity books, etc., which are available for free loan from the East Central Curriculum Management Center which is located at the Illinois State Board of Education. In addition, some publications which are available on a cost recovery basis from the Curriculum Publications Clearinghouse at Western Illinois University are listed. The listed materials would be especially useful in a business orientation course.

Teachers are encouraged to send for the materials from the ECCMC and to have their names placed on the mailing list for the Curriculum Publications Clearinghouse brochure of publications available. The items listed on the following pages may be ordered on loan, *without cost,* from

East Central Curriculum Management Center
Illinois State Board of Education
Department of Adult, Vocational and Technical Education
100 North First Street
Springfield, Illinois 62777
The phone number is Area Code 217-782-0759

Books, Booklets, Pamphlets

Aim for a Job in the Business Office, Richards Rosen Press, Inc., New York, NY 10010. 1977. 159pp.

This book is designed to prepare its readers for the realistic world of working for a living. A variety of jobs are discussed from file clerk to administrative secretary. Included also are the requirements in skills and knowledge for the various job categories.

All About Banking, Warren Schloat Productions, Inc., A Prentice-Hall Company, 160 St. Daniel Street, Florissant, MO 63031. 1975

Provides a wide range of information about banking—its purposes and functions—to stimulate interest in the many varied career opportunities offered in the field.

An In-School Job Program Grade Level 6-12, Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 35pp.

This booklet is one of several career guidance components created for secondary education. Each of the components contains goals, objectives, specific implementation strategies, suggested resources, and evaluation instrumentation.

A Bibliography of Free Loan Materials for Business Education, Wisconsin Vocational Studies Center, University of Wisconsin, Madison WI 53706. 1976.

Materials in this bibliography have been identified from throughout the United States. Materials collected as part of the ongoing operation of the center have been included, as have many items contributed by various departments on the Madison campus and teachers throughout the state.

A Bibliography of Free Loan Materials for Distributive Education, Wisconsin Vocational Studies Center, University of Wisconsin, Madison, WI 53706. 1976. 15pp.

Materials in this bibliography have been identified from throughout the United States and include materials collected as part of the ongoing operation of the Wisconsin Vocational Studies Center.

Potential uses of the materials listed include workshops, student and teacher references, identification of curriculum aids, undergraduate and graduate student references, administrative planning, identification of materials for purchase, and other classroom or instructional uses.

Business and Finance: Careers for Bilinguals/Carreras Para Bilingues, Regents Publishing Co., Inc., New York, NY. 1976.

Familiarizes students with available job and career opportunities in business and finance and lets them see the ways in which bilingualism can work for them. Introduces a variety of employees which might be found in any large corporate office and discusses positions for workers whose job takes them outside the office.

Business and Office Careers, Fairchild Publications, Inc., New York, NY. 10003. 1975. 199 pp.

This book is planned to give students an opportunity to explore some of the jobs available in business and office careers and some of the skills needed for employment. The book includes a variety of job tryouts and unit skills that may be required on more than one job.

Career Development: High School, Board of Education of the City of Chicago, 228 North LaSalle, Chicago, IL 60601. 1977. 262pp.

The following objectives of the program have been identified to carry out these career development goals: to develop awareness of the relationship between school activities and world of work; to provide a systematic study of occupations; to provide career experiences through work-related field trips, walking tours, and resource speakers; to recognize the social value of necessary work. In addition to these general program objectives, more specific objectives are stated for each of the guidance units to be explored by students.

Career Education in the High School, Olympus Publishing Company, Salt Lake City, UT 84105. 1977. 461pp.

Emphasizes career decision-making and career preparation; yet it does not neglect career awareness and career exploration. It defines career education as a process that begins at birth and extends through adulthood. This book relates the concepts of career education to the goals of the high school. It discusses career development and the significant role of the high school in that process. It deals with the subject of work values, with particular emphasis on the concern for values characteristics of high school students.

Career Orientation Series, Ohio Department of Education, Columbus, OH 43215. 1976.

This series of booklets was developed to provide students with information about the career opportunities and occupational information within the occupational cluster areas. The booklets are designed to be integrated into various subject areas at grades 7 and 8. Two booklets which are available in:

Business and Office
Marketing and Distributions

Career Planning and Course Selection Grade Level 9-12, Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 31pp.

This booklet is one of several career guidance components created for secondary education as follows: Student Interpretation Process for Career Maturity Inventory, Job Hunting and Interviewing Skills, Career Planning and Course Selection, and Educational and Job Placement Process. Each of the components contains goals, objectives, specific implementation strategies, suggested resource and evaluation instrumentation.

Careers in Focus Series, Gregg Division, McGraw-Hill Book Company, 1221 Avenue of the Americas, New York, NY 10020. 1976.

Careers in Office Services, Butterick Publishing, New York, NY 10013. 1975.

This audiovisual program outlines not only the various skills, but also the attitudes and temperament needed to succeed in office work.

Careers with Material Handling Equipment Manufacturers, Materials Handling Institute, Inc., 1326 Freeport Road, Pittsburg, PA 15238. 1974. 32pp.

This booklet presents a diversity of career opportunities in virtually every industry and activity. A wide range of company sizes, product specialties, and organizational structures are discussed. The need for job orientation and training on a continuing basis, regardless of education or background is also stressed.

Discovering You

The occupational manuals contain detailed information about more than 350 jobs in 13 occupational clusters. Each manual presents the students with 27 "explorations." These exporations are hands-on activities designed to help the student understand the kind of work done in particular occupations. The emphasis is on providing a job experience rather than on developing a particular job-related skill.

Discovering You deals with students' values and self-identity. It presents guidelines to help students identify their interest, abilities and values and relate them to the process of career decision making.

The series includes a consumable worksheet booklet which accompanies the *Discovering You* manual and a Teacher's Manual and Key. A full-color sound filmstrip and three interview cassettes accompany each occupational manual and the *Discovering You* manual. (The Audiovisual materials are *not* available on loan.)

Educational and Job Placement Process Grade Level 12, Coloma Community Schools, P. O. Box 218, Coloma, MI 49038. 1977. 25pp.

This booklet is one of several career guidance components created for secondary education as follows: Student Interpretation Process for Career Maturity Inventory, Job Hunting and Interviewing Skills, Career Planning and Course Selection, and Educational and Job Placement Process. Each of the components contains goals, objectives, specific implementation strategies, suggested resource and evaluation instrumentation.

Exploration of Retailing Careers, Florida State Department of Education, Tallahassee, FL 32304. 1974. 404pp.

This guide has been developed around the six major departments found in most retailing businesses which include: buying, shipping and receiving, sales promotion, personal selling, customer services, and credit and control. Each of these areas is handled in a separate unit.

This curriculum guide is divided into two major sections: the teacher's guide section and the student materials section. The teacher's guide section is composed of eight units. The first seven units cover the content of the course. The last unit called Special Activities contains materials which may be used throughout the course.

Exploration of Wholesaling Careers. Florida State Department of Education, Tallahassee, FL 32300. 1974. 311pp.

This publication is a distributive education offering which is designed as a semester unit of instruction at the middle or junior high school level. The course is developed around five major working areas found in most wholesaling businesses. These include: buying, selling, warehousing, transportation, and finance. Each of these areas is handled in separate units. The curriculum guide is divided into two major sections—the teacher's guide section and the student materials section. The teacher's guide section is composed of eight units. The first seven cover the content of the course. The eighth unit called Special Activities contains materials which may be used throughout the course.

Exploratory Business, Gregg Division, McGraw-Hill Publishing Company.

Exploring Careers, Prepared by Ms. Elaine Prewitt and Martha Keeton from the Vocational Education, Curriculum Development Center at Lexington, Kentucky

Exploring Careers in Business, South-Western Publishing Company, Cincinnati, OH 45227. 1978. 186pp.

This book deals with two career clusters: business and office, and marketing and distribution. It is based on sound career development and learning theory. It provides needed information and activities, and it draws the student into the learning process. Students learn about the organization and operation of various businesses as they gain insight into careers in those businesses.

Exploring Careers in Business and Office, A Guide for Teachers. Curriculum Development Center, Vocational Education, Lexington, Kentucky

Exploring Careers in Marketing and Distribution, A Guide for Teachers. Curriculum Development Center, Vocational Education, Lexington, Kentucky.

Exploring Clerical Careers, South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1974. 71pp.

This easy-to-read text-workbook introduces the student to the world of work in clerical careers in 20-25 clock hours. The publication is well illustrated and is written on the hands-on exploration level. It contains paths and trails rather than the conventional units and chapters, and it is student activity-oriented.

Exploring Data Processing Careers, South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1975. 154pp.

An easy-to-read text-workbook which introduces the student to the world of work in careers in data processing in 20-25 clock hours. It is well illustrated and provides the student with an opportunity to read, write, and explore various career opportunities in data processing. No equipment is necessary. It contains paths and trails rather than the conventional units and chapters.

Exploring Wholesaling and Retailing Careers, South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1976. 154pp.

This text-workbook introduces the student to various careers in wholesaling and retailing. It is student activity-oriented and requires no special equipment or other instructional material to complete.

Handbook for Infusing Career Development Grades 7-12, Coloma Community Schools, P. O. Box 218, Coloma, MI 49038. 1977. 41pp.

The material in this book contains a strategy to guide teachers through a writing process that includes: identifying goals and objectives, selecting instructional strategies, and designing evaluation techniques, all of which result in a set of instructional plans which build career development instruction into existing courses.

Idea Book: Ideas for Infusion, Coloma Community Schools, P. O. Box 218, Coloma, MI 49038. 1977. 247 pp.

Each of the infusion examples in this book contains goals, objectives, specific implementation strategies, suggested resources and evaluation instrumentation. The contents and processes involved in the components are consistent with accepted career development theory and practice.

Introduction to Business and Office Careers, McKnight Publishing Company, Bloomington, IL 61701. 1975.

This kit should enable students to: research job placement needs; prepare to open a job placement office; experience business and office functions; assess personal pre- and post-differences in attitudes, interests, knowledge, and skills related to business and office careers; and make intelligent educational and career planning decisions.

Job Hunting and Interviewing Skills Grade Level 11-12, Coloma Community Schools, P. O. Box 218, Coloma, MI 49038. 1977. 56pp.

This booklet is one of several career guidance components created for secondary education. Each of the components contains goals, objectives, specific implementation strategies, suggested resources, and evaluation instrumentation.

Jobs in Your Future, Scholastic Book Services, 904 Sylvan Avenue, Englewood Cliffs, N.J. 07632. 1973. 96pp.

The purpose of this book is to take the student from where he/she is now through a sequence which explores vocational interests, skills and needs. Through stories and practical exercises, the student learns about eight career fields and the steps necessary for finding and keeping a job.

Looking Ahead: Occupational Exploration and Career Planning Course, Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 198pp.

This book is one of several career development components created for secondary education. Included are suggestions for goals, objectives, evaluation, and some possible resources for strategies which are appropriate for a ninth grade course dealing with occupational exploration and career planning.

Opportunities in Accounting Grades 7-14, Vocational Guidance Manuals, A Division of Data Courier, Inc., Louisville, KY 40202. 1977. 147pp.

This book presents all types of accounting careers—public, private, teaching, and government. It discusses the difference between bookkeepers and accountants, details the qualifications necessary for accountants, and explores the different fields of accounting work, such as tax and management specialties. One chapter of the book concentrates on the Certified Public Accountant—how to qualify for the certificate and what the status of a CPA does for an accountant.

Opportunities in Free-Lance Writing Grades 7-14, Vocational Guidance Manuals Louisville, KY 40202. 1977. 108pp.

This book is an insider's guide to the techniques employed by established writers. It tells how to detect marketable non-fiction material, prepare salable manuscripts, circulate finished articles among likely publishers, and evaluate final offers. Some of the tricks of the trade, such as "slanting" are also revealed. The appendix includes information on writers' associations and recommended reading.

Opportunities in Journalism Grades 7-12, Vocational Guidance Manuals, Louisville, KY 40202. 1977. 139pp.

In this book, jobs in every facet of contemporary journalism are described from the small town weekly to the big city daily, and the wire service bureau. Special sections tell how to prepare for a journalism career, how to get started, and what the future of the newspaper business will be. It also gives information about educational preparation, salaries, professional organizations and a list of recommended reading.

Opportunities in Library and Information Science Grades 7-12, Vocational Guidance Manuals, Louisville, KY 40202. 1977. 175pp.

This book describes the gamut of librarianship, from running a rural public library to administering a collection of archives. The different types of libraries and information centers are explained and a typical librarian's day is described. Educational preparation is detailed at the high school and college levels, including library technical assistant programs.

Opportunities in Office Occupations, Vocational Guidance Manuals, 620 South 5th Street, Louisville, KY. 40202. 1976. 159pp.

This book analyzes the myriad of office occupations, educational preparation needed, duties and requirements of the job, the work situation, salary grades, and the employment trends, today and the future. Teachers, students, and vocational counselors should find this book helpful in preparing for office occupations now and for the future.

Opportunities in Publishing Careers Grades 7-14, Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 160pp.

This book covers the scope of book publishing from children's religious and textbooks to technical, scientific, and medical publishing, university presses and paperback publishing. In addition, it includes chapters on: getting started, jobs in publishing, libraries, newspapers, magazines, specialized publishing and self-employment. Appendices list professional organizations, accredited schools, and recommended readings.

Student Interpretation Process for the Assessment of Career Development Inventory Grade Level 9-12, Coloma Community Schools, P. O. Box 218, Coloma, MI 49038. 1977. 19pp.

This booklet is one of several career guidance components created for secondary education. Each of the components contains goals, objectives, specific implementation strategies, suggested resources, and evaluation instrumentation.

Student Interpretation Process for the Career Maturity Inventory Grade Level 8-12, Coloma Community Schools, P. O. Box 218, Coloma, MI 49038. 1977. 21pp.

This booklet is one of several career guidance components created for secondary education. Each of the components contains goals, objectives, specific implementation strategies, suggested resources, and evaluation instrumentation.

Studio in Advertising Design, Fashion Design and Illustration, Product Design, Stage Design Volume 3, New York State Education Department, Bureau of Secondary Curriculum Development, Albany, NY 12200. 1974. 78pp.

This document provides teaching guidelines and information on advanced elective courses in a studio art program for grades 10, 11, and 12. The courses are presented in four sections: (1) studio in advertising design—advertising and production, lettering, illustrating, and color reproduction; (2) studio in fashion design and illustration—elements and principles of design and fashion in advertising; (3) studio in product design—role of the designer, implications of product design, and mechanical drawing; and (4) studio in stage design—unity of sets, lighting, costume and makeup.

The Business Office Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 1978. 358pp.

This book is designed to help teachers help students to investigate and focus on specific career paths that appear interesting to them, with emphasis on the discovery of skills they like to use or think they would like to use. A wide renge of office jobs and a varitey of office skills used on those jobs are discussed and illustrated. The Office Career Guide Chart provides students with the opportunity to summarize the job skills they like and dislike. Each job exploration has three dimensions: The setting; the summary; and the job skills needed to perform the work.

The Individual, Business, and Society Prentice-Hall, Inc., Englewood Cliffs, NJ 07632. 1972. 468pp.

This book covers an impressively broad range of topics in business and society today by making the issues come alive as challenges for individual readers to wrestle with for themselves. The central focus of this volume is on self-examination, and self-determination. It is a book focusing on the individual's role in solving conflicts that arise in the course of one's work and one's life. The book concerns itself with the major social issues of our time.

Timed Writings About Careers South-Western Publishing Company, 355 Conde Street, West Chicago, IL 60185. 1975.

The purpose of this text is to supplement the timed writings included in the basic typewriting textbook and to provide pertinent and interesting material to help young people make their own career decisions. It is designed to accompany textbook presentations for each semester of typing as directed by the teacher.

Word Processing East Central Curriculum Management Center, Illinois Office of Education 100 North First Street, E-426, Springfield, IL 62777. 1977. 129pp.

Section I of the guide is an overview of word processing, Section II deals with office cluster careers, Sections III through VI provide information on competencies, learning activities, curriculum models, and special needs students. Sections VII and VIII include tools and resources to help develop and teach word processing programs.

Your Career In Marketing Gregg Division of McGraw-Hill Book Company, New York, NY 10036 1976. 472pp.

This textbook is designed to introduce students to the field of marketing and to the broad range of career opportunities. Those covered in the text are as follows: Marketing: what it's all about, you and a marketing career, preparing for a career in marketing, careers in marketing goods, careers in marketing services, and starting your education and experience.

Films

A Career for Tomorrow, American Learning System, P.O. Box 2173, 21902, 1106 Jeannette Avenue, Columbus, GA 31906. (404) 327-2619. 1977.

This is an audiovisual program which assists students in gaining a better understanding of career opportunities which are available. It includes filmstrip, cassette, and guide book for the following clusters areas:

Introduction to Careers
Transportation and Recreation
Communications and Media
Agribusiness and Natural Resources
Business and Office Careers
Marketing and Distribution

Entering the Working World, Butterick Publishing, New York, NY 10013. 1975.

This filmstrip shows students how to get a job. It describes how to write a resume, how to write a letter seeking a job, how to fill out a job application, and how to research job opportunities within the community.

Getting and Keeping Your First Job, Guidance Associates, Pleasantville, NY 10570. 1966.

This filmstrip examines necessary skills and attitudes for job selection and job success.

How to Get That Job, Bowmar, Glendale, CA 91200. 1974.

This filmstrip helps prepare students to enter the employment market by giving them a set of specific procedures to follow in seeking the right job.

If You're Not Going to College, Guidance Associates, Pleasantville, NY 10570. 1965.

This filmstrip helps prepare students for the job search. It also discusses union and non-union work, and careers in service-industries, manufacturing, civil service fields.

Telexplorer Kit, Scholastic Magazines, Inc., New York NY 10000. 1977.

Designed for grades K-12, this filmstrip kit demonstrates how field trips can be made by phone. It outlines how to plan and arrange a call, prepare the student, make the call, follow up, and evaluate the call.

The Library of Career Counseling Films, Counselor Films, Inc., 2100 Locust Street, Philadelphia, PA. 19103.

The titles, which follow, may be checked out individually. Each film is 16mm, color, and 15 minutes long.

1. *Is a Career as a Technician for You?*
   It describes the real diversity of industrial, commercial, scientific, and government settings in which technicians work.
2. *Is a Career in the Health Services for You?*
   This film is an overview of the health services and takes a look at the nature of the work and at the important conditions in the great variety of health occupations.
3. *Is a Sales Career for You?*
   This films takes a look at all kinds of salespeople who sell all kinds of things and services from apples to hotels and insurance to zebras.
4. *Is a Career in the Service Industries for You?*
   This film takes an objective look at the workers and their work in a great variety of service occupations: cook, waitresses, nursing aides, flight attendants, firemen, police, barbers, building custodians, and many others.
5. *Is a Career in Government for You?*
   This film examines in depth the occupations found almost exclusively in government and briefly some of the thousands of other occupations existing both in government and in private industry. It is designed to inform young people of opportunities for employment in state and local governments as well as the U.S. Government.
6. *Is a Career in the Hotel or Motel Business for You?*
   A film behind and in front of the scenes in commercial resorts and residential establishments. Hotels and motels are for guests who expect comfort and service and for employees who provide that comfort and service in a variety of ways.
7. *Is a Career in Finance, Insurance, or Real Estate for You?*
   This narrated overview looks at the workers, their work and the conditions of their employment and seeks to help young people make educational and career plans.
8. *Is a Career in Clerical Work for You?*
   This film takes a close-up look at workers and their work in 14 clerical occupations.
9. *Is a Career in the Professions for You?*
   The film briefly studies scores of professionals at work—from doctors, nurses, and teachers to counselors, librarians, and social workers; from chemists, economists, and botanists to engineers, football players, and dancers.
10. **Is a Career in Management for You?*
    This is a film that tells young people about top-level management, middle management, and the supervisors or first-line management people.

*These films (1-10) may be reserved for use on short notice.

11. *The World of Work*
    This film encourages students to examine a wide range of career possibilities and suggest how they can learn about the choices open to them.
12. *Is a Career in Business Administration for You?*
    This film defines the five major occupational groups included in business administration and describes work settings, conditions, tasks and rewards as well as entry requirements and paths to advancement.
13. *Is a Career in the Restaurant Business for You?*
    This film describes the many opportunities for employment from entry jobs to those requiring more specialized training or experience. It also explores the opportunities of moving up from the relatively simple entry jobs to more specialized occupations.
14. *Is a Career in Banking for You?*
    This film shows what people do to provide the range of services we expect from the banking industry as well as the academic background essential for specific jobs.
15. *Is a Career in the Aerospace Industry for You?*
    This film shows people at work in the principal occupations in this field. It describes, through nar-

ration and visual images, the nature of working conditions in aerospace industries.

16. *Is a Career in the Telephone Industry for You?* This film helps students explore the many career opportunities in the telephone industry. It shows the variety of occupational skills needed to provide this world-wide service as well as to spark students' awareness of the range of occupational skills needed for specific jobs.

17. ***How a Career Develops* This film gives an overview of the continuous, lifelong process called career development. Encourages people to examine careers in relation to individual interest, values, and abilities.

**These films (11-17) should be reserved during May for the following school year.

Curriculum Publications Clearinghouse

The following publications may be ordered from the Curriculum Publications Clearinghouse which is operated by Western Illinois University through a contractual service agreement with the Illinois State Board of Education, Department of Adult, Vocational and Technical Education for the purpose of providing state-developed curriculum materials on a cost recovery basis. As new curriculum products are developed, they are added to the inventory of the Clearinghouse. To receive notice of future publications, write to the Curriculum Publications Clearinghouse and ask for your name to be placed on the mailing list. Review copies are not available through the Clearinghouse but may be obtained on loan from the East Central Curriculum Management Center, 100 North First, Springfield, Illinois 62777.

For ordering any of the following publications, please write to Curriculum Publications Clearninghouse, 47 Horrabin Hall, Western Illinois University, Macomb, Illinois 61455. You may order by phone in Illinois by calling 800-322-3905, Toll Free, and ask for Curriculum Publications Clearinghouse.

The cost is given for the following publications as of September 1979. Please check for an up-to-date brochure of materials available from the Clearinghouse as well as for the up-to-date costs.

Expanding Career Horizons (kit)
Developed to help students, male and female, attain the following goals: To understand (1) the meaning of the sex role stereotyping of jobs, (2) that it is illegal under Federal law to discriminate by sex in employment, (3) the patterns and results of women's participation in the labor force, (4) the effects of women's participation in the labor force on family standard of living, (5) the problem of sex bias in guidance tests. Each classroom kit is complete wih teacher's guide, 50 sets of student materials, 5 games and all their component parts. 1977. $25.00

Guides to Occupational Orientation
A series designed for orientation. Includes learning activity packages, teacher references, and career resources. The purpose of the learning activity packages is to acquaint students with the wide range of occupational choices available within the specified field. Each learning activity package lists the objective of the activity; the equipment, supplies, and forms required; the rationale behind the activity; and the suggested procedure for teaching the lesson. It is suggested that the Teacher's Guide be purchased with any of the occupational orientation guides. 1976. $18.00 set.

Available in the following fields:

11. A. Applied Biological and Agricultural Occupations @ $3.50

11. B. Business, Marketing and Management Occupations @ $3.50

11. C. Health Occupations @ $4.50

11. D. Industrial-Oriented Occupations @ $3.50

11. E. Personal and Public Service Occupations @ $3.50

11. F. Teacher's Guide to Occupational Orientation @ $2.00

Methods and Materials for Teaching Occupational Survival Skills, 1978. $14.95.

A resource concerned with the "human" aspects of working in organizations. The guide is divided into twelve instructional modules and a test section for student evaluation. Each module is divided into five or more sessions. Each session involves a highly action-oriented approach and contains the following components: (a) topic, (b) objective, (c) survival skills emphasized, (d) importance, (e) materials and equipment, (f) activity, and (g) follow-up.

The twelve instructional modules include the following:

- Working in Organizations
- Motivation for Work
- Understanding Self
- Interpersonal Relations
- Effective Communications
- Using Creativity at Work
- Problem Solving
- Authority and Responsbility
- Leadership
- Coping with Conflict
- Coping with Change
- Adapting and Planning for the Future

A National Annotated Bibliography of Curriculum Materials in Vocational and Career Education
Contains abstracts of 410 vocational and career education curriculum materials. 1974. FREE.

INFUSION OF CAREER EDUCATION, METRICS, ECONOMIC EDUCATION

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INFUSION OF CAREER EDUCATION, METRICS, ECONOMIC EDUCATION

THE CAREER EDUCATION CONCEPT
  Business Education and Career Education
  Business and Industry Involvement in Career Education

THE METRIC SYSTEM
  History
  Terminology and Definitions
  Implications for Business Education
  Teaching Metrics Through Practical Application
  Basic Rules of Expression
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  Summary

ECONOMIC EDUCATION
  Legislation
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  Economic Problems of the 1980's
  Curriculum
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BIBLIOGRAPHY

INFUSION OF CAREER EDUCATION, METRICS, ECONOMIC EDUCATION

Career education, metrics, and economic education are three areas that will continue to demand the attention of business educators in the 1980's. This section will examine developments in each of the three areas and discuss the role of each in the business education curriculum.

The Career Education Concept

Career education represents an educational reform designed to convert the educational process to one that prepares each individual for a role in society. Among the criticisms of American education that career education seeks to correct are:

1. Too many students fail to see meaningful relationships between what they are being asked to learn in school and what they will do when they leave the education system. This is true of both those who graduate and those who drop out of the educational system before attaining a diploma.

2. American education has not kept pace with the rapidity of change in post-industrial society. As a result, when worker qualifications are compared with job requirements, we find over-educated and under-educated workers are present in large numbers.

3. Too many persons leave our educational system unequipped with the vocational skills, the self-understanding and career decision-making skills, or the work attitudes that are essential for making a successful transition from school to work.

4. The general public, including parents and the business-industry-labor community, has not been given an adequate role in formulation of educational policy.

5. Insufficient attention has been given to learning opportunities outside the structure of formal education which exists and are increasingly needed by both youth and adults in our society.[1]

Marland indicated that the career education concept integrated within the educational system will guarantee job entry skills for high school graduates and dropouts, technical skills for all graduates of two-year colleges and technical institutes, and career skills for all college graduates. Marland also claims that school will be made more meaningful for students, particularly in a career sense; that schools will establish placement services that will get young people into jobs; and that new approaches to career education will be installed from kindergarten through graduate school. The career education process will restructure the elementary and secondary school curricula to familiarize students with basic information about occupations in the primary grades and expose students to real work situations in the middle years. In high school, students will prepare to enter their chosen field, with a marketable skill at graduation or sooner, or prepare for technical or professional training at the college level.[2]

Worthington described career education as a bold new design for education. Career education, he indicated, will effect a blend of academic, general and work skills learning so that individuals passing through the educational system would be ready for economic self-sufficiency and for new learning experiences appropriate to career development and vocational interests.[3]

The National Association of State Directors of Vocational Education in 1971 adopted a position paper on career education which stated that career education is not synonymous with vocational education but is a major part of career education; career education enhances rather than supplants public school educational programs. Career education, the paper reported, is an integral part of the total public education enterprise that involves all students and educators. Career education involves extensive orientation and exploration of occupational opportunities and includes specific preparation for occupations. The paper claims that career education will assure realistic occupational choices, promote wholesome attitudes toward all useful goals, and permit each student to realistically assess personal attributes as a part of setting life goals.[4]

The basic policies of American education must change if career education is to be successfully implemented. Business and industry cooperation with education will require policy revisions. Among the basic educational policy changes suggested by Hoyt are:

1. The installation of systems for granting educational credit for learning that takes place outside the walls of the school.

2. Increasing use of noncertificated personnel from the business-industry-labor community as resource persons in the educational system's total instructional program.

3. The creation of an open-entry/open-exit educational system that allows students to combine school with work in ways that fit their needs and educational motivations.

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[1] Kenneth B. Hoyt, Rupert N. Evans, Edward F. Mackin, and Garth L. Mangum, *Career Education, What It Is and How to Do It* (Salt Lake City: Olympus Publishing Company, 1972), pp. 17-18.

[2] Sidney P. Marland, "Career Education: A Model for Implementation." (Washington D.C.: Bureau of Adult, Vocational and Technical Education, Division of Vocational and Technical Education, U.S. Office of Education, May, 1971).

[3] Robert M. Worthington, paper presented at the Fourth Annual Leadership Development Seminar for State Directors of Vocational Education. Las Vegas, Nevada. September, 1971.

[4] National Association of State Directors of Vocational Education. "Position Paper on Career Education." Las Vegas, Nevada. September, 1971.

4. Substantial increases in the career guidance, counseling, placement, and followup functions as parts of American education.

5. Increased utilization of educational technology for gathering, processing, and disseminating knowledge required in the teaching-learning process.[5]

Michael Bakalis, former superintendent of public instruction for the state of Illinois, initiated public hearings to determine educational goals and priorities. One of the substantive goals of education in Illinois that resulted from testimony presented at the public hearings was that the educational system must provide every student with opportunities to prepare them for the world of work.The report summarizing the hearings and conferences stated:

> The need for expanded opportunities in career education was one of the dominant themes in the testimony presented at the public hearings. A career education system capable of serving all students, whether they are university bound or not, must be broadly conceived as a part of a redesigned total educational system. It must incorporate training for the world of work as one of its major purposes.[6]

The Illinois State Board of Education targeted career education as one of the goals to be given priority. The state board philosophy on career education states that:

> All children should be prepared for the world of work through programs of career education. The career education responsibilities should be shared by school district personnel at all levels so that in every curriculum area all types of occupations are shown to have an important place in today's world.[7]

The emphasis on career education was strengthened when Congress passed the Career Education Incentive Act in December 1977. The legislation was designed to support programs to develop and implement comprehensive career education programs in local school districts. The funds are to be used to develop programs which are designed to infuse career education ideas in regular classroom instruction; provide student guidance and counseling services in cooperation with individuals and groups outside the school, such as labor, industry, women's groups, and handicapped persons; employ new people for career education; train local people in career education; and purchase instructional material.

Business Education and Career Education

Business education teachers have traditionally advocated the preparation of secondary and college students for business careers. Business education programs offer students interested in careers in business an opportunity to develop the competencies needed to perform in a business. Every course in the business education curriculum can make a contribution to career education.

Business education was intensively involved in career education in the 1970's and will continue to provide career information and preparation for the youth of this country. Strong support for career education has come from the National Business Education Association, the Illinois Business Education Association, and the Illinois State Board of Education, Department of Adult, Vocational and Technical Education.

In 1978, the National Business Education Association was awarded a contract from the U.S. Office of Education to develop a national program to help business educators understand the need for career education and assist in the implementation of career education.[8] The NBEA Task Force on Career Education was formed and has developed a classroom teachers handbook, monographs dealing with understanding career education concepts as they apply to business education, and newsletters dealing with activities and resources within the profession related to career education.

The classroom teachers handbook covers the need for career education, its rationale and concepts, and the relevance of career education to the teaching of business. The teachers handbook contains examples of actual teaching materials used for infusion of career education concepts into business skills courses and basic business courses. Among the topics emphasized are occupational information and economic awareness, career decision-making skills, self-awareness and self-image, human relations, work values, work habits, and job seeking, getting, and maintaining. The book shows the many career options available to business students and contains reprints of articles dealing with the infusion of career education concepts into business courses and an annotated bibliography of relevant literature.

The National Business Education Association has sponsored regional career education training seminars held in conjunction with regional NBEA conventions. The training seminars, directed by members of the National Task Force for the NBEA Career Education Project, were designed to emphasize the need for career education and its relevance to business education, provide participants with an understanding of developments and trends affecting career education, share exemplary career education materials, discuss business skills that provide students with a background for career options, and illustrate how career education can be infused into education for business classes. NBEA has also provided business educators with career education information through its yearbook and the Business Education Forum.

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[5] Hoyt, op. cit., pp. 30-31.

[6] Office of the Superintendent of Public Instruction, *Action Goals for the Seventies: An Agenda for Illinois Education.* (Springfield, Illinois: State of Illinois, November, 1973), p. 41.

[7] Illinois State Board of Education, *State Board of Education Goals Statement.* (Springfield, Illinois: State of Illinois, November, 1975), p. 6.

[8] "NBEA Report on Career Education in Business Education," *Career Education Extra,* National Business Education Association, No. 2, May, 1979.

The Illinois Business Education Association has helped business teachers implement career education concepts through its conventions, newsletters, and publications. *Career Education Activated By Business Educators in Illinois* described efforts by business teachers to implement career education in middle and junior high schools, secondary schools, and community colleges. State conventions and programs sponsored by IBEA have provided opportunities to disseminate career education materials and ideas.

The Illinois State Board of Education's Department of Adult, Vocational and Technical Education has supported career education through its research projects, publications, curriculum center, consultants, and workshops. The *Illinois Career Education Journal* keeps educators in the state aware of career education developments. The East Central Curriculum Management Center in the Illinois State of Board of Education provides educators on a loan basis with federal, state, local, and commercially developed curriculum materials. The Curriculum Publications Clearinghouse at Western Illinois University provides business educators, on a cost recovery basis, with material on career education or other business subjects.

Business educators must continue to push for career education and recognize the importance of our role in educating students for the world of work. Woolschlager and Harris suggest that business education teachers should:

> Become a catalyst in helping to develop the school's philosophy which will cause all teachers to support the career education concept.
>
> Seek out facts about the school, students, and community which will give support to the need to implement career education for all students.
>
> Offer talents and energies to help in the planning, development, and implementation of the various elements of career education.
>
> Assist in the development of survey instruments and in conducting such surveys to determine job and career opportunities, available resources, knowledges and attitudes needed for success.
>
> Assist in identifying individuals to serve on advisory committees, and act as resource persons to such committees.
>
> Assist academic teachers, K-12, by informing them of the knowledges and skills needed in business occupations that can be taught through their subjects. Assist such teachers in the development of teaching units, securing appropriate resource materials, arranging field trips, utilizing business people in the classroom.
>
> Encourage and assist in securing community involvement and support including materials, supplies, and equipment.
>
> Analyze the business education program to determine how it can be expanded and enriched to serve more students in their pursuit of a career.
>
> Keep in mind always that career education is more encompassing than vocational education, making it a necessity for business education to provide a total program that will enable each student to achieve his/her career goal.
>
> Be continuously on the alert for opportunities to acquaint students with job descriptions that utilize the particular skills or competencies learned. As an example, copy materials for a typing drill may well include brief descriptions of a variety of business and office occupations. Practice material for shorthand might be used effectively in the same way. Teachers from kindergarten through grade 12 should be encouraged to employ job description materials wherever possible.
>
> Stress and encourage other teachers to emphasize the importance and contribution of jobs in business and discuss their interrelatedness. Consider all jobs within a business. While refraining from emphasis on job hierarchy, make clear what the career ladders and lattices have to offer.
>
> Use outside experts from the community to acquaint students with the need for the competencies acquired in business and the nature of the work involved in these occupations. Suggest or recommend to teachers some business people who can make presentations to the lower grades. These teachers may not realize the importance of involving outside experts.
>
> Keep up to date on employment trends. Teach students to use the *Occupational Outlook Handbook*. Share this information with other teachers as well as students to avoid an oversupply of trained workers for some jobs and a shortage for others. Avoid making false assumptions regarding employment trends. Periodic work experience for teachers can provide a tremendous insight into the current employment situation.
>
> Develop short-term and long-term opportunities for students to observe and actually test their interests and aptitudes in business in simulated or actual work situations. Special day-at-the-job programs or simulated hands-on courses are needed. These programs require school-community cooperation. Retired persons are frequently interested and available to assist in exploratory work projects.
>
> Discuss case histories of personal career development experiences of people in your field. Personal experiences, experiences of students currently enrolled, or anyone else employed in the field would be appropriate. Incorporate more career information into all classes and subjects.

> Learn about career development theory—what it is, what it means in terms of working with students, and how it can be put into practice.
>
> Continue to provide middle school, junior high school, and high school counselors and teachers with information about the business career preparation programs and about occupations in which students could use the competencies acquired in these programs.
>
> Expand school-community cooperation in order to provide additional cooperative training for more students who can profit by it.
>
> Encourage students to maintain the attitude that they are preparing for a cluster of business occupations rather than a specific job. They should be encouraged to keep several options open regarding their next step upon leaving school. Neither continuing education nor immediate employment should be ignored as realistic alternatives.
>
> Show students the importance of human relations skills. Encourage students to develop human relations and marketable vocational skills to help get, hold, and advance on a job. One excellent way to accomplish these tasks is through student organizations.
>
> Expand contacts with community employers as possible sources of employment for exiting students. This should be viewed as a responsibility of all business educators regardless of whether or not they teach a course typically taken just before the student enters the labor market. Cooperative educational teachers have an excellent opportunity to develop these contacts.
>
> Expand contacts with admission counselors of schools at all levels to improve two-way communications regarding applicants and openings in various programs.
>
> Conduct regular follow-up studies to evaluate the total program.[9]

Business and Industry Involvement in Career Education

Business, industry, and labor cooperation with education is essential to the implementation of career education. The need for business and industry involvement in education is not new. Jewett, in 1930, stated that business should take a lively interest in secondary education. He suggested that anything done to enhance the efficiency of secondary education would have a beneficial influence on business.[10]

The United States Chamber of Commerce suggests that business and industry provide assistance to education. The chamber board of directors approved the following policy declaration on career education:

> Businessmen and chambers of commerce should cooperate with boards of education, community colleges, technical institutes and colleges and universities to assist them in developing more relevant and authentic career education programs—programs that allow easy entry and exit by the student. Businessmen should provide technical advice on career programs, curricula materials and equipment, and cooperative work programs.[11] (sic)

The American Vocational Association recommended that educators seek the assistance of business and industry. A policy resolution resolved that educators "at the national, state, and local levels continually strive to increase the involvement of laymen in their respective occupational areas through advisory committees and other means.[12] (sic)

Research has examined the level of business and industry involvement in career education. A study by Campbell of randomly selected Chicago metropolitan area firms found that business and industry were moderately involved in career education activities and generally desired involvement in the career education process. The study recommended that educators work closely with chambers of commerce and trade and professional association, and found that business firms with employee training divisions or education divisions were potential sources of career education assistance.[13]

The failure of business and industry to cooperate has economic consequences. Burt warns:

> When industry and education ignore each other or fail actively to cooperate, the inevitable result is schools turning out unqualified workers and industry suffering skilled manpower shortages. The student and community are cheated while industry is forced to engage in expensive in-plant training or be satisfied with untrained workers giving low-grade performance. The cost is passed on to the public who thus pays twice—once for ineffective schools and again for the expense of ineffectively trained workmen in industry.[14] (sic)

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[9] Ruth B. Woolschlager and E. Edward Harris. "Issues in Career Education," *Business Education Yesterday, Today, and Tomorrow.* Fourteenth Yearbook. (Reston, Virginia: National Business Education Association, 1976). Chapter 20, pp. 231-233.

[10] Frank B. Jewett, "Modern Business Looks at Secondary Education," *Schools and Society*, Vol. 31, No. 796, March 29, 1930, pp. 415-423.

[11] Chamber of Commerce of the United States, "Policy Declarations 1971/1972." Washington, D.C., 1971.

[12] American Vocational Association, *Convention Proceedings Digest*, National Convention, Chicago, December 1-6, 1972, Washington, May, 1973.

[13] Wilbur L. Campbell, Jr., "The Career Education Involvement of Chicago Metropolitan Area Business and Industry with Secondary Schools." Unpublished Dortoral dissertation, Northern Illinois University, DeKalb, Illinois, 1976.

[14] Samuel M. Burt, *Industry and Vocational-Technical Education.* (New York: McGraw-Hill Book Company, 1967), p. 42.

The schools, working alone, cannot provide the variety of work-related experiences necessary for career education. Business educators must continue to involve business and industry in career education. Career education cannot succeed without a cooperative effort.

Career education is, however, only one of the three areas which is requiring special consideration by teachers of business courses. Another, conversion to the metric system, has required the business educator to determine his/her role in preparing students for the world of metric measurement. The following briefly establishes the historical basis for metric conversion, provides an explanation of metric terminology and states the implications for business education.

The Metric System

History

The system of weights and measures used in the United States has its heritage in the English system, which in turn can be traced back to the civilizations along the Nile and on the Chaldean plains. The early standards were based on anatomical dimensions that were imprecise and varied greatly among individuals.

A cubit measured from the point of the elbow to the outstretched tip of the middle finger. The span, approximately half a cubit, measured the distance between the outstretched tips of the thumb and little finger. King Edward I of England decreed that the official inch was equal to three barley corns taken from the middle of the ear and laid end to end. Capacity was determined by filling vessels with seeds and then removing and counting them. Time was based on the position of heavenly bodies.

Although England had, by the 18th century, achieved a greater degree of standardization than other continental countries, there still existed an undesirable lack of uniformity among the 13 colonies. For example, a bushel of oats in Connecticut was 28 pounds and in New Jersey, 32 pounds. This confusion later spread to the new states and the bushel of oats represented 33½ pounds in Kentucky and 35 pounds in Missouri.

Clauses in the Articles of Confederation and the Constitution gave power to Congress to set uniform standards for weight and measures.

It was recognized over three hundred years ago that a worldwide coordinated measurement system was needed, and in 1790 the National Assembly of France asked the French Academy of Sciences to "deduce an invariable standard for all the measures and all the weights." The metric system resulted, and by 1971 all but fifteen countries in the world were using the metric system, were in the process of converting to it, or were studying how to convert to it. More than 95 percent of the people of the world measure by the metric system or are learning how; the majority of the five percent who do not are in the United States.

In 1971, the Secretary of Commerce, in transmitting to Congress the results of a three-year study authorized by the Metric Study Act of 1968, recommended that the United States change to predominant use of the metric system through a coordinated national program.

In 1975 Congress passed the Metric Conversion Act which provided for:

1. Changing the country to the metric system in a coordinated manner.
2. Implementing the change on a *voluntary basis.*
3. Establishing a 17-person metrication commission representing all sectors of society.
4. Developing a plan for implementation.
5. Having industry pay the cost of their conversion as an ordinary expense of conducting a business.

In December of 1977, names for the metric commission were sent to Congress for approval, and 13 were approved in March 21, 1978. The board held its first meeting in May of 1978.

Since the commission is to be the major activating force, concentrated evidence of government encouragement may be forthcoming during the eighties; however, the board has no real authority because conversion is not mandatory and no time limit has been set for changeover.

A provision requiring metric education in Illinois schools was included in the Illinois Program for Evaluation, Supervision, and Recognition of Schools. The mandate states:

> By 1980, every school system shall provide measurement instruction based upon the International System of Units in those subject matter areas which include measurement activities.[15]

Terminology and Definitions

The term "metric system" refers to an international system of measurement based on units such as the meter, gram, ampere, and degree Celsius. The technical name is Systeme International d'Unites, abbreviated SI and known in this country as the International System of Units.

One of the greatest advantages of SI is that multiples and submultiples of the basic metric units involve powers of ten. There are only seven base units in the International System of Units:

1. the meter, the unit of length
2. the gram, the unit of mass
3. the second, the unit of time
4. the ampere, the unit of electric current
5. the kelvin, the unit of temperature
6. the candela, the unit of luminous intensity
7. the mole, the unit of amount of substance

All other units, such as volume and speed, are derived from the base units.

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[15] The Illinois Program for Evaluation, Supervision, and Recognition of Schools, Illinois State Board of Education Document Number 1, 1977, pp. 15-16.

The relationship between units is indicated by the prefix of the name of the units.

METRIC PREFIXES
(Using meter to illustrate relationships)

1,000 meters	= 1 kilometer (1 km)
100 meters	= 1 hectometer (1 hm)
10 meters	= 1 dekameter (1 dam)
BASE UNIT	= 1 METER (1 m)
1 tenth meter	= 1 decimenter (1 dm)
1 hundredth meter	= 1 centimeter (1 cm)
1 thousandth meter	= 1 millimeter (1 mm)

For everyday measurements, use will primarily be limited to the meter, the liter and the kilogram. The liter was one of the original metric units, and although not technically an SI unit, it is accepted and is generally used when making metric measurements of volume of liquids or capacity of containers for holding liquids.

The three prefixes: milli, centi, and kilo will be the most frequently referred to. The ability to multiply or divide by 10, 100, or 1,000 by moving a decimal point will be essential to efficient use of the metric system.

Implications for Business Education

Students enrolled in business education courses in the eighties must be conversant with basic metric measurements. The following topics represent the minimum metric skills both business teachers and students should possess:

1. historical background
2. present legal status
3. implications of metric implementation for business and the consumer
4. familiarity with units of length, mass/weight, volume, temperature and speed
5. issues and concerns of variously affected groups
6. decimal system of numeration
7. metric prefixes and symbols
8. rules for writing metric quantities

Although conversion to the metric system of measurement is inevitable, it is impossible to presently predict the rapidity of the metric movement. New typewriter keyboards are being proposed, and metric paper sizes have been established, but may not come into common usage until the end of the decade. All business education students should, however, be prepared immediately to use efficiently those metric measures which will affect them as employees and consumers.

The business education teacher, with only a few hours of preparation, can assist students in acquiring necessary metric skills. Units of length, mass/weight, volume, temperature and speed should be taught along with the rules for correct punctuation and spelling. Current teaching methods and devices can be utilized in presenting the metric system, and audio-visual aids and hands-on metric equipment are readily available at reasonable prices.

Teaching Metrics Through Practical Application

Sequence for Introducing Metric Measurement. Measurement is one of the principal connecting links between mathematics and everyday life; therefore, this need must be established in the business classroom. A short history of the customary system will enable students to see the lack of logic and accuracy of measurements which were originally based upon diverse anatomical dimensions. Need can also be established by asking students to give examples of metric measurement now in use in the United States. It may be helpful at this point to suggest a metric scrapbook as a class project, a metric bulletin board, or a display of items reflecting metric measurements.

The unit of length, the meter should be introduced first. Multiples and submultiples of length are all expressed as some multiple of the length of a meter. Although the pronunciation of the multiples and submultiples is not completely standardized, those with four syllables are usually pronounced with the first and third syllables accented. Kilometer is pronounced either kil′-om′-eter or kil′-o-me′-ter.

Place Value. The place value of the subunits and rapid conversion from one subunit to another should be stressed. Meter sticks, centimeter rulers and metric tape measures should be provided to aid students in developing an intuitive feel for the correct dimensions.

Length. To assist students in conceptualizing of the metric unit of length, provide a list of items in the classroom. Ask that the length of the item first be estimated in the most appropriate metric unit and the estimate recorded in the space provided. The items should then actually be measured, utilizing the meter sticks or rulers and this measurement compared with the estimate. Students can soon close the gap between their estimates and the correct metric measurements.

Use familiar objects for comparison:

A softball bat is almost one meter long.
A millimeter is about the thickness of a dime.
A large paper clip is about one centimeter wide.
A decimeter is about the length of a can of soup.
A hectometer is a little longer than the distance between the goal lines of a football field.

After students can successfully determine metric lengths, it is time to reinforce with application problems related to vocational or consumer use. Games and puzzles taken from the workbook-type publications enliven class work and permit individual as well as group application of metric skills.

Perimeter and Area. In logical progression, students move from measuring length to measuring perimeter and area. The formulas are those used in the customary system, merely substituting a metric unit for the inch, foot, or yard. Instead of writing "square meters" for area, the term should be expressed by using the exponent, written "m^2."

Volume. Volume should be the next concept developed. It is simple to progress from figuring the area of a square to the volume of a cube, expressed as "m^3." At this time the liter, the most common measure of capacity, should be introduced. This unit is used for both liquid and dry measures. Some teaching aids which are helpful in conceptualization are plastic centimeter cubes, cardboard or plastic decimeter cubes, some graduated cylinders with milliliter markings, and a measuring cup showing both customary units and milliliter markings.

Gram. The last metric unit of measure to be introduced is the gram, identified with mass or weight. Although the distinction between mass and weight is very important to the scientist, the two terms may be used interchangeably for practical purposes. It is helpful to have a balance and weights in different metric sizes so that an association of the weights of common objects with metric units can be encouraged.

Temperature. Some time may be spent on temperature, but most business education students will need only to understand that 20° Celsius (formerly Centigrade) is a comfortable room temperature and that water freezes at 0° Celsius and boils at 100° Celsius. It is beneficial to keep a thermometer in the room which is calibrated in degrees Celsius and have a student write the temperature on the board each day.

Basic Rules of Expression

To be especially well-versed in the rules for writing metric quantities is a must for business education students. Although some controversy still exists in the spelling of the word "meter" or "metre" and "liter" or "litre", there is substantial agreement among the educational, scientific, and industrial communities that correspondence and reports should follow these guidelines:

Rules for Writing Metric Quantities[16]

1. Capitals

Units: When written in full, the names of all units start with a lower case letter, except at the beginning of a sentence. Note that in degree Celsius the unit "degree" is lower case but the modifier "Celsius" is capitalized. The "degree centigrade" is now obsolete.

Symbols: Unit symbols are written with lower case letters except that the first letter is upper case when the name of the unit is derived from the name of a person. Unit symbols should be printed in roman (upright) type irrespective of the type used in the rest of the text.

Prefixes: Except for tera (T), giga (G), and mega (M), all symbols for numerical prefixes are written with lower case letters. All prefixes are written in lower case letters when written out in full, except where the entire unit name is written in upper case letters.

Examples:

For meter*	write m
For millimeter	write mm
For kilometer	write km
For gram	write g
For milligram	write mg
For kilogram	write kg
For second	write s
For millisecond	write ms
For liter*	write l
For milliliter	write ml
For candela	write cd
For newton	write N
For pascal	write Pa
For megapascal	write MPa
For volt	write V
For millivolt	write mV
For ampere	write A
For microampere	write μ A
For joule	write J
For watt	write W
For kilowatt	write kW
For hertz	write Hz

*The British spellings are metre and litre. Some U.S. technical groups have recently adopted these spellings in the hope that there may be worldwide agreement on the spelling of these words in the English language.

2. Plurals

a. When written in full, the names of units are made plural when appropriate. Fractions (both common and decimal) are always singular.

b. Symbols for units are the same in singular and plural (no "s" is ever added to indicate a plural).

Examples:

55 kilometers OR 55 km
2.5 grams BUT 0.5 gram

3. Periods

A period is NOT used after a symbol, except at the end of a sentence.

Examples:

A current of 15 mA is found. . .
The field measured 350 x 125 m.

4. The Decimal Point

The dot is used as the decimal point and is placed on the line. When writing numbers less than one, a zero must be written before the decimal point (because of the possibility that the decimal point will be obliterated or overlooked).

Example:
The oral expression "point seven five" should be written 0.75.

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[16] Adapted from Metric Editorial Guide, American National Metric Council, Washington, D.C., 1974.

5. Grouping of Numbers

a. Separate digits into groups of three, counting from the decimal sign. The comma should not be used. Instead, a space is left to avoid confusion, since many countries use a comma for the decimal point.

b. In numbers of four digits, the space is not recommended, unless four-digit numbers are grouped in a column with numbers of five digits or more.

Examples:

For 4,720,525	write 4 720 525
For 0.52875	write 0.528 75
For 6,875	write either 6875 or 6 875

6. Spacing

a. When writing symbols or names for units having prefixes, no space is left between letters making up the symbol, or the name.

Examples:

kA, kiloampere, mg, milligram

b. When writing a symbol after a number to which it refers, a space must be left between the number and the symbol.

Examples:

455 kHz, 22 mg, 16 mm, 20 °C

7. Squares, Cubes, Etc.

When writing symbols for such units as square meters or cubic centimeters, the correct method is to write the symbol for the unit, followed by the superscript^2 or ^{3} respectively.

Examples:

For 14 square meters, write 14 m^2
For 26 cubic centimeters, write 26 cm^3

8. The Word "Per"

When the word "per" forms part of the name of a unit (e.g., meters per second), the symbol requires an oblique stroke or solidus, or the use of a negative exponent. Such abbreviations as k.p.h. or kph for kilometers pe hour should be avoided.

Examples:

For 50 meters per second, write 50 m/s (or 50 $\text{m}\cdot\text{s}^{-1}$)
For 75 kilometers per hour, write 75 km/h

Do not write 50 meters/second or 75 kilometers/hour except where strong need for deviation exists because of space limitations.

9. Compound Units

When writing the symbol for a compound unit that is formed by the multiplication of two or more units, a centered dot is used: for example, $\text{N}\cdot\text{m}$.

When writing the name for such a unit, a hyphen is recommended (or a space is permissible) but never a centered dot; for example, newton-meter or newton meter.

Strategies for Involvement

Strategies for involving students in metric measurement are not limited to the creativeness of the individual teacher. Resource units have been published by local school districts and games, simulations, and audio-visual materials are available from publishing companies.

Think Metrics in Business Education, published by the Illinois Business Education Association, contains methods and materials designed to bring metrics into the curriculum. The monograph includes metrics instructional procedures for consumer education, data processing, shorthand, and distributive education courses. The publication contains excellent motivational aids that have been successful in the classroom.[17]

A Metrics Implementation Guide was developed through a grant from the Illinois State Board of Education Department of Adult, Vocational and Technical Education. The guides contain methods and materials for implementing the metric system in agriculture, health, industrial, personal and public service, and business occupations. The guides are available through the Curriculum Publications Clearinghouse at Western Illinois University.[18]

Many of the learning devices normally used in basic business classes readily adapt to metric instruction. For example:

1. Have students conduct a survey of manufacturing businesses in the area to see whether they are now using the metric system or plan to convert in the immediate future.
2. Start giving typing instructions in metric terms.
3. Have students prepare a kilometer chart of distances to major cities surrounding the school using the school as the focal point.
4. Have a speaker from a local corporation or government office discuss the need for metric measurements.
5. Devise a metric poster contest; seek the sponsorship of local service clubs.
6. Furnish articles for the school newspaper promoting the use of metric measurement.

Summary

Conversion to the metric system of measurement is inevitable in the United States. Although complete conversion may not occur during the eighties, all business students should be prepared immediately to use efficiently those metric measures which will affect them as employees and consumers.

The third area requiring the attention of the business educator is economic education. Economic education, even though a fundamental part of business education, must continue to receive emphasis if economic literacy is to be improved. The next section deals with the importance and relevance of economic education in our society.

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[17] Wilma Jean Alexander, ed., *Think Metrics in Business Education,* Illinois Business Education Association, Fall, 1976.

[18] *Metrics Implementation Guide,* State Board of Education, Illinois Office of Education, Joseph M. Cronin, State Superintendent of Education.

Economic Education

Economic education has long been a fundamental part of business education. In 1930, Shields wrote that real business education is economic education.[19] In 1944, Schlink stated that the business education can teach skills and lay the habit patterns for effective and discriminating consumer purchasing.[20] In 1950, the Policies Commission for Business and Economic Education was formed to bring about a better understanding of what constitutes business and economic education. The Policies Commission states:

> WE BELIEVE THAT . . . Business education has an important contribution to make to the economic literacy of all secondary school . . .
>
> Opportunities must be provided for secondary school students to develop an understanding of how our business system operates . . . Programs that develop economic understanding should be planned cooperatively with other departments of the school that are concerned with economic education . . .[21]
>
> WE BELIEVE THAT . . . Consumer education should be a part of everyones' general education, and every school system should include consumer education in the curriculum . . . Business education can make an important contribution to consumer education without duplicating the efforts of other subject fields . . . Every business teacher's education program should include preparation for teaching consumer education subject matter . . . Federal and state funding should be available to all fields of study that have or may develop programs in consumer education.[22]

The need for economic education is no less today than it was decades ago. The economic problem of the 1980's will require business educators to continue to fight economic illiteracy.

Legislation

The Illinois state legislature and the Illinois State Board of Education recognize the need for economic education. In 1967, the Illinois legislature passed a bill that required consumer education in the public schools. The bill indicated:

> Pupils in the public schools in grades 8 through 12 shall be taught and required to study courses which include instruction in the area of consumer education, including but not necessarily limited to installment purchasing, budgeting, and the comparison of prices.[23]

By 1977, the mandate for consumer education was included in the Illinois Program for Evaluation, Supervision, and Recognition of Schools. The instructional program of a school is required to include consumer education and protection:

> Pupils in the public schools in grades 8 through 12 shall be taught and required to study courses which include instruction in the area of consumer education including, but not necessarily limited to, installment purchasing, budgeting, comparison of prices and understanding of the roles of consumers interacting with agriculture, business, trade unions, and government in formulating and achieving the goals of the mixed free enterprise system.
>
> A program in consumer education may include the following topics: the individual consumer in the marketplace, money management, consumer credit, human services—housing, food, transportation, clothing, health services, drugs and cosmetics, recreation, furnishings and appliances, insurance, savings and investments, taxes, and the consumer in our economy.
>
> The superintendent of each unit or high school district shall maintain evidence which shows that each student has received adequate instruction in consumer education as required by law prior to the completion of the 12th grade. Consumer education may be included in course content of other courses, or it may be taught as a separate required course.
>
> The superintendent of each elementary school district shall maintain evidence which shows that each student has received adequate instruction in consumer education as required by law prior to the completion of the eight grade.
>
> The minimal time allocation shall not be less than nine weeks or the equivalent for grades 10-12 and shall include installment purchasing, budgeting, comparison of prices and understanding of the roles of consumer interacting with agriculture, business, trade unions, and government in formulating and achieving the goals of the mixed free enterprise system. The board of education may determine the amount of instruction devoted to consumer education in the eighth grade provided it includes all of the mandates stated above.[24]

Organizational Support

Numerous organizations have assisted in the development of economic education programs in Illinois. The Illinois Council on Economic Education, a consortium of leaders from business, labor, government and education is a non-profit educational corporation organized in 1951 for the purpose of improving the teaching of economics and the level of economic understanding in the state of Illinois. The council helps teachers, students, and other interested persons in learning the basic economic concepts that will enable them to develop an understanding of how our economy operates and their roles as producers, consumers, and citizens within the system. Affiliated with the Joint Council on Economic Education, a national, independent, nonprofit educational organization incorporated in 1949, the Illinois Council on Economic Education has focused primarily on training teachers in economics, on involving teachers in the development and dissemination of effective classroom materials, and in bringing together educators and community leaders who cooperate to develop localized programs of economic education that reflect community needs. The council is also concerned with programs to increase economic literacy at the college and adult level and with research and publications in areas relevant to economic education.[25]

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[19] H. G. Shields, "Real Business Education is Economic Education." *Journal of Business Education*, June, 1930, p. 27.

[20] F. J. Schlink, "The Purpose and Function of Business Education of Consumers," *Community Cooperation in Business Education*. First American Business Education Yearbook. (Somerville, N.J.: Somerset Press, 1944), p. 74.

[21] Policies Commission for Business and Economic Education, "This We Believe About Business Education in Secondary School." *Business Education Forum*, 25:8; October, 1970.

[22] Policies Commission for Business and Economic Education, "This We Believe About Business Education in Secondary School." *Business Education Forum*, 27:14-15; April, 1973.

[23] Illinois, The School Code of Illinois, Sec. 21-21.1, (1967).

[24] The Illinois Program for Evaluation, Supervision, and Recognition of Schools, p. 15-16.

The Illinois Council on Economic Education operates through a network of Centers for Economic Education located at universities throughout the state. Centers are located at Bradley University, DePaul University, Illinois State University, Northern Illinois University, Southern Illinois University Edwardsville, University of Illinois at Champaign-Urbana, and Western Illinois University. Services provided by the Centers for Economic Education include:

> Offering credit courses that assist teachers and prospective teachers integrating economic concepts into their curricula.
>
> Providing consultant help for schools, educational agencies, and community organizations.
>
> Maintaining a resource center for instructional materials.
>
> Developing and distributing effective materials in economic education.
>
> Sponsoring research relating to the improvement of techniques and methods of teaching economics.
>
> Offering adult economic education programs for business or community sponsorship.
>
> Facilitating cooperation among educators and community organizations.

The World of Work Economic Education (WOWEE) program is an in-service education program for classroom teachers sponsored by the Illinois Council on Economic Education. Introduced into Illinois in 1974, WOWEE programs have operated in Collinsville, Joliet, Naperville, Springfield, Sterling, Wood River, and Lake County and involved social studies, business education, home economics, and vocational teachers in developing and implementing a curriculum dealing with the economics of work. The curriculum bridges the gap between education and work by helping students understand such themes as the structure of the United States economy, changes brought about by technology, the changing role of work and how market processes, occupational opportunities and decision-making skills are related.

Another organization that has aided business education teachers with economic education is the Illinois Consumer Education Association, formed in 1973. Its first president was Hayden Green, and the editors of the association newsletter were Ruth Scobie and Gladys Bahr. The organization has held conferences every year since 1974 and has provided assistance to business education, home economic and social studies teachers in developing teaching strategies for consumer and economic education.[26]

The Illinois Business Education Association, National Business Education Association, American Council on Consumer Interests, and Delta Pi Epsilon have made contributions to the economic emphasis in business education through their programs and publications. The Alpha Phi Chapter of Delta Pi Epsilon at Northern Illinois University has prepared and disseminated a programmed instruction package of consumer education units.[27]

Economic Problems of the 1980's

The American people will be faced with widespread economic problems in the 1980's. Rising energy and food prices will be causes for concern. Inflation and the value of the dollar may cause economic woes. High rates of youth unemployment may cause social unrest in urban centers. Hall and O'Toole predicted that economic problems of the future will include:

> **Shortages of energy.** Although the United States has only 6 percent of the world's population, we use 33 percent of the world's energy . . . If current trends continue, it is projected that by 1985 the average American household will consume daily the energy equivalent of 70 pounds of coal, 15 gallons of oil products, 12 gallons of natural gas, and 5½ gallons of nuclear energy. There is a serious question today, of course, whether these quantities of energy will be available at that time . . . In any case there probably will be far less energy available than most of us would like, and the prices are certain to be higher than we would like.
>
> **High rates of unemployment for youth.** . . . It is likely, therefore, that in the early 1980's the unemployment rate will be well above the 4½ percent that is defined as full employment...it appears that new entrants into the labor market may have considerable difficulty finding jobs in the early 1980's. These frustrated job seekers will come largely from the ranks of youth who are being graduated from our high schools and colleges.

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[25] Illinois Council on Economic Education 1976-1977 Annual Report.

[26] Gladys Bahr and Ruth Peters Wegforth. "A Historical Development of an Economic Emphasis in Business Education," *Business Education Yesterday, Today, and Tomorrow.* Fourteenth Yearbook. (Reston, Virginia: National Business Education Association, 1976). Chapter 2, p. 29.

[27] Ibid., p. 29.

> **Shifts in the structure of the market system.** During the first three quarters of this century there has been a steady shift in the American economy away from the laissez-faire philosophy of Adam Smith. This trend . . . toward greater control of the economy by government shows every evidence of continuing into the 1980's . . . Almost certainly by the 1980's there will be strong advocates of government intervention in health care, insurance, and pricing . . . As energy prices increase political pressure for greater government control of public utilities and the energy industries such as coal, petroleum, and natural gas will mount.
>
> **Reduced purchasing power of the dollar.** The high unemployment rates of the 1970's and early 1980's will put severe pressure on government officials to press for full employment in the latter part of the 1980's. But, the monetary and fiscal policies necessary to stimulate production and create jobs will cause price increases in the 1980's . . . The rate of inflation will be in the 4 to 6 percent range each year during the early 1980's, and it may increase to an annual rate of 8 to 10 percent in the late 1980's as more attention is given to full employment.[28]

Hall and O'Toole suggest that the economic problems of the 1980's will make the public more aware of the need for economic education. Citizens will realize that they can function more effectively if they are economically literate and will demand that schools increase their economic education efforts.[29] Business education must be prepared to meet this challenge.

Curriculum

Economic theory provides the foundation for the basic business courses in the business education curriculum. Basic business courses include general business, introduction to business, and business management, consumer economics, economics, consumer law, business law, and advanced basic business. Bahr and Wegforth illustrate how students may study the law of competition in a variety of basic business courses:

> In an economics course one learns how the law (of competition) operated in the days of Adam Smith in 1776. Economic geography treats the relationship of the physical factors of the environment and of economic conditions to productive occupations. In general business, emphasis is placed on learning about organizations such as banks, savings and loan associations, and credit unions which compete for one's savings; in consumer education classes, competition is stressed as an important concept for all to master as consumers try to get their money's worth for goods and services.[30]

Other economic topics studied in the business education curriculum may include: economic scarcity, factors of production, supply and demand, money and credit, business cycles, the role of government, comparative economic systems, savings investment and capital, opportunity costs, marginalism, comparative advantage, interdependence, and profit.

Teaching Techniques

A wide variety of teaching techniques may be employed by business education teachers to help students achieve economic literacy. Successful teaching techniques include question and answer, discussion, debate, committee and group work, case study, simulation games, role playing, brainstorming, and the use of newspapers and current events, bulletin boards, and guest speakers.

Hall and O'Toole suggest that the 1980's will bring changes in approaches to teaching economic concepts:

> The teaching-learning systems that will be used to teach economic concepts in the 1980's will rely less exclusively than today's material on students' reading skills . . . Filmstrips, audio cassettes, transparencies, motion pictures, and text-workbooks will be among the material that make up the learning packages.
>
> There is a chance that by the end of this century schools will make greater use of activities such as those now sponsored by the Junior Achievement movement . . . The learning experiences these firms provide are as close to real life as we have yet been able to provide . . . If every high school student could be involved in organizing, financing, and operating a real business firm, perhaps many of our other efforts to develop economic understanding would be doubly effective.[31]

Summary

Business educators have an opportunity to contribute to the career education, economic education, and metric education of students at the secondary and post-secondary levels. Business education teachers must intensify efforts to integrate career education, metric education, and economic education concepts into the curriculum. The profession can play a strong role in developments in these areas throughout the 1980's.

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[28] J. Curtis Hall and Dennis O'Toole. "Economic Literacy," *Business Education Yesterday, Today, and Tomorrow.* Fourteenth Yearbook. (Reston, Virginia: National Business Education Association, 1976). Chapter 22, pp. 239-241.

[29] Ibid., p. 241.

[30] Bahr and Wegforth, op. cit., p. 20.

[31] Hall and O'Toole, op. cit., pp. 245-246.

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Metrics Implementation Guide, State Board of Education, Illinois Office of Education, Joseph M. Cronin, State Superintendent of Education.

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Worthington, Robert M. Paper presented at the Fourth Annual Leadership Development Seminar for State Directors of Vocational Education. Las Vegas, Nevada. September, 1971. Paper in career education.

Sources of Metric Teaching Materials

(Books, Pamphlets, Newsletters, Journals)

Books

These seven books are available from Math-Master, P.O. Box 1911, Big Spring, TX 79720.

1. *Introducing the Metric System with Activities* by Donald A. Buckeye. A book of 50 activities designed to help students develop a basic understanding of the metric system. The activities are arranged by measurement topics: linear, area, volume, liquid, weights, and temperature. Selected answers are included at back of book.
2. *Metric Measurement—Activities and Bulletin Boards* by Trueblood. A compilation of 50 metric measurement games, activities, and bulletin boards. (Available from Educational Teaching Aids, 159 W. Kinzie St., Chicago, IL 60610.)
3. *Duplicating Workbook.* Set of 18 spirit duplicating lessons for individual or group activities. (Also available from Educational Teaching Aids.)
4. *Thinking Metric* by Thomas F. Gilbert and Marilyn B. Gilbert. A 130-page self-instructional book designed to teach metric measurement through experiments and exercises. Each chapter is programmed for individualized instruction and followed by a self test.
5. *The Metric System of Measurement* by Holmberg. A book of enrichment activities devoted to measuring metrically. The 98 tearout pages may be used as separate lessons or as nine mini-units of study.

6. *Let's Play Games in Metric* by Glunn Henderson. A two-part book on metric. Part I is a basic metric handbook. Part II contains descriptions of 177 classroom games and activities designed to help students develop a better understanding of the metric system.

7. *Amusements in Developing Metric Skills* by Alice A. Clark and Carol H. Leitch. A book of metric measure puzzles. There is also a section of materials for the teacher, including game and bulletin board ideas and metric tables and vocabulary.

Fun with Metric Measurement by Betty Long and Carol Witte. Activity Resources Co., Inc., P.O. Box 4875, 16841 E. 14th St., Hayward, CA 94545. Exciting variety of teacher-prepared activities which introduce measuring and estimating in metric units. Pages of games, cutouts, maps, bumper stickers. Multi-graded, 84 pages.

The International Metric System and How it Works by Robert A. Hopkins, Polymetric Services, Inc., P.O. Box 696, Tarzana, CA 91356.

Introducing the Metric System, Coronet Films, 65 E. South Water St., Chicago, IL 60601. An excellent programmed book for either class use or individualized instruction. Contains 10 sets and covers the metric system as a whole and length, area, volume, capacity and mass in detail. Highly recommended.

Metrication Handbook, J.J. Keller and Associates, Inc., Neenah, Wisconsin. An excellent resource book for the teacher. Includes information on the evolution of the metric system; the system itself; living metric; metrication in the U.S.; and references, sources, and contacts. 129 p.

Metric System Simplified by Gerald Kelly. Available from Sterling Publishing Co., Inc., 419 Park Ave. South, New York, NY 10016. Includes special chapters on everyday uses of metrics in the kitchen, in cars and in sports. Explains stickier points for the non-mathematically inclined with many practical examples.

The Teacher's Guide to the Metric System by A.L. LeMaraic and J.P. Ciaramella. A simplified version of the metric system especially designed for busy teachers at all grade levels. Explains what every teacher should know in simple language. Available at bookstores or from Metric Media Book Publishers, P.O. Box 266, Somers, NY 10589.

Think Metric, South-Western Publishing Co., Cincinnati, Ohio. Especially designed for business education students.

SI Metric Units, An Introduction by H.R. Adams, McGraw Hill, Ryerson Ltd., New York. Some information applicable to business education but contains much more technical information than needed.

Activities Handbook for Teaching the Metric Systems. Gary Bitter, Jerald Mekesell and Kathryn Maurdeff. Allyn and Bacon, Inc., Boston, Mass., 1976.

Pamphlets

An Educator's Guide to Teaching Metrication, Consumer Information Services, Sears, Roebuck & Co., Chicago, IL 60684. A 7-page pamphlet of teaching suggestions.

Going Metric, Channing L. Bete Co., Inc., 45 Federal St., Greenfield, MA 01301. A 15-page facts booklet about the metric system. Could be useful in a basic business class.

Metric—Units of Measure, U.S. Metric Association, Inc., Sugarloaf Star Route, Boulder, CO 80302. An 11-page booklet giving general information on metric system.

Some References on Metric Information, Metric Information Office, National Bureau of Standards, Washington, DC 20234. NBS Special Publication 389, Revised 1974.

Two . . . To Get Set, American Association of School Librarians, 1201 16th Street, NW, Washington, DC 20036. A selected bibliography of instructional aids for metrication. Developed to provide teachers and librarians with a guide to materials for effective teaching of the metric system.

Newsletters

Metric Association Newsletter. Published quarterly. Annual Dues. U.S. Metric Assoc., Inc., Sugarloaf Star Route, Boulder, CO 80302.

Metric Reporter. Published biweekly. American National Metric Council, 1625 Massachusetts Ave., NW, Washington, DC 20036. Gives up-to-date news on legislation and conferences.

Journals

American Metric Journal, AMJ Publishing Co., Drawer L., Tarzana, CA 91356. Published bimonthly.

Sources of Metric Teaching Aids
(Games, Kits, Posters, Measuring Devices, Convertors, Etc.)

A. Balla & Co., P.O. Box 24200, Fort Lauderdale, FL 33307

Activity Resources Company, Inc., P.O. Box 4875, 16841 E. 14th St., Hayward, CA 94545

Compu-Data Services, P.O. Box 471, Wayne, NJ 07470 In addition to other teaching aids, the company offers a game, "Mr. Metrics: Meter-Liter-Gram." The game can be played by 2-10 persons at one time. The game board is laid out in metric units, game tokens are cubic centimeters, and players move across the game board as they respond to metric questions.

Creative Publications, P.O. Box 10328, Palo Alto, CA 94303

Dick Blick Company, P.O. Box 1267, Galesburg, IL 61401

Educational Teaching Aids, 159 W. Kinzie St., Chicago, IL 60610

Enrich, Inc., 3437 Alma St., Palo Alto, CA 94306

Library Filmstrip Center, 3033 Aloma, Wichita, KS 67211

Metric Handbook for Educators, Math-Master, P.O. Box 1911, Big Springs, TX 79720 (lists teaching aids, including prices)

Metric Media Book Publishers, P.O. Box 266, Somers, NY 10589 (Charts and posters)

Metrix Corporation, P.O. Box 19101, Orlando, FL 32814

Mind/Matter Corp., P.O. Box 345, Danbury, CT 06810

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MATHEMATICS FOR BUSINESS

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MATHEMATICS FOR BUSINESS

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MATHEMATICS FOR BUSINESS

Issues and Problems

Business Mathematics focuses on the application of quantitative techniques to the solution of business-related problems. The title itself points to one of the continuing issues in the field: should the course be business arithmetic or business mathematics? *Webster's Third New International Dictionary* defines arithmetic as "the branch of mathematics that treates of the properties and relationships of real numbers and of computations with them involving chiefly addition, subtraction, multiplication and division,"[1] while it defines mathematics as "a science that deals with the relationship and symbolism of numbers and magnitudes and that includes quantitative operations and the solutions of quantitative numbers."[2] These definitions are not particularly helpful in solving the dilemma, although they do imply that one of the differentiating factors between arithmetic and mathematics is the use of symbolism. Most opponents of the use of the term mathematics defend their choice on the basis of some variations of the following reasons:

1. Students don't have an adequate background in mathematics.
2. Words are easier than symbols to comprehend and deal with.

These reasons are fairly easy to refute. There are few problems in business math that require mathematical expertise beyond solving systems of equations of the first degree. Many business mathematics teachers have very little knowledge about the methods and content of the mathematics taught in the public schools today. Too many still accept the outdated assumption that equation solving techniques are learned in algebra or other "academic" math classes. In actuality, students are introduced to equations, and solve them intuitively, at the first grade level. In seventh and eighth grades, if not before, they learn the rules for solving simple equations and systems of equations. Thus, most students do have an adequate background in mathematics to enable them to apply it in business math.

That the use of words rather than symbols makes problems solving simpler is difficult to defend. While it is true that some math courses use a form of notation which is like a foreign language to the uninitiated, there is no need to go to this extreme in a business math class. Notation should be similar to that to which the student is accustomed. Since in both the arithmetic and the mathematics approaches all problems must be reduced to equations prior to solution, the real question is whether it is simpler for the student to learn one equation for each concept, or a number of equations for each concept. Teaching students to read and comprehend word problems and to translate literal statements into equations representing the relationships expressed is far more valuable than forcing them to memorize multiple forumlas for each relationship.

It is imperative that business mathematics teachers become knowledgeable about the actual mathematical background of their students and adjust their teaching methods accordingly to facilitate learning.

A more crucial issue, and one for which there can never be a single definitive solution, is the necessity of focusing business math on student needs. Students use what they learn in business math in three ways: they use it in other courses that they take, they use it to sharpen consumer skills which enable them to function more effectively in the marketplace, and they use it ultimately in the job market to get a job and/or to perform effectively on the job. To facilitate the transfer of business math skills to other courses, it is necessary to coordinate the various courses to identify mathematical competencies needed and to minimize friction in the transfer of learning. Often there are several methods which may be used to arrive at the same solution to a problem. If each course in which a concept is used employs a different method of solution (or uses different terminology or symbols), students' learning is made unnecessarily complicated and difficult. A little effort on the part of the teachers involved to assure the consistent use of uniform terminology and symbols and compatible methods can simplify the work of both teachers and students.

Many of the topics usually included in business math, such as percent, discounts, interest and credit, investments, wages, taxes and insurance, are of immediate interest to students as consumers of goods and services. There are many opportunities to increase consumer skills. By clarifying both business and consumer viewpoints on various topics, business math may even provide a potential for lessening the adversarial relationship which has grown between business and consumer.

Making certain that business math does the best possible job of preparing the students for employment may require a bit of effort on the part of the teacher. Resources which may be useful in determining what mathematical competencies are needed for jobs include the following: employers, placement offices, employment services, and professional literature. One extensive survey indicated that the most important competency identified by employers was calculator use, followed by discounts, cost, markup, selling price, sales tax, and units of measure. The least important competencies identified were statistics and graphs.[3] Employers and employment agencies frequently mention competence in three basic operations as needed job skills: the ability to use a calculator, understanding of common business symbols and terms, and a perception of the importance of various types of calculations. When these needs are known, it is possible to design a business math course to assure that students have the opportunity to acquire needed competencies by covering needed topics, incorporating the use of the calculator, and including practical problems which demonstrate the importance of calculations to business decision making.

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[1] *Webster's Third New International Dictionary,* unabridged, Springfield, Mass.: G.C. Merriam Co., 1971, p. 118.

[2] *Ibid.*, p. 1393.

[3] James R. McAnally, "A Study of Mathematical Competencies Considered Important by Supervisors in Large Retail Firms in the Metropolitan Chicago Area," Unpublished dissertation (DeKalb, IL: Northern Illinois University, 1977) Ch. 4-5.

Objectives

The general objectives of a business mathematics course are as follows. They can be used as a basis for developing measurable objectives.

1. Improve the student's facility and accuracy in performing the four fundamental operations with whole numbers, fractions and decimals.
2. Provide the student with an understanding of basic business terminology.
3. Develop competency in the basic mathematical concepts most often needed in business problems.
4. Develop the ability to apply mathematical concepts in solving business problems.
5. Develop the ability to read and understand practical business problems sufficiently well to provide a basis for determining a method of solution.
6. Utilize appropriate business mathematical concepts to aid in the decision-making process.
7. Develop concern for examining solutions to determine their reasonableness in relation to the problem and through comparison with estimated answers.
8. Promote work habits, attitudes, and ideas considered essential for success in business.
9. Develop competence in the use of electronic calculators to perform mathematical operations.

Course Outline

I. Review of Basic Mathematics
  A. Addition, subtraction, multiplication and division
    1. Whole numbers
    2. Decimals
    3. Fractions
    4. Electronic calculator
  B. Field axioms
    1. Commutative
    2. Associative
    3. Distributive
    4. Identity elements
    5. Inverses
    6. Closure
  C. Equations
    1. Writing simple equations from word problems
    2. Solving equations
    3. Finding solutions for systems of simple equations
  D. Percent
    1. Identifying the components of percent problems
    2. Solving percent problems

II. The Mathematics of Merchandising
  A. Pricing
    1. Markup
    2. Markdown
  B. Discounts
    1. Cash discounts
    2. Trade discounts
  C. Inventory
    1. Stockturn
    2. Depreciation
    3. Purchasing and receiving goods

III. The Mathematics of Finance
  A. Interest
    1. Simple interest
    2. Notes and discounting
    3. Compound interest
    4. Present value
  B Credit
    1. Non-installment credit
    2. Open-end credit
    3. Installment credit
  C. Investments
    1. Bonds
    2. Corporate stocks

IV. The Mathematics of Wages and Taxes
  A. 1. Hourly earnings
    2. Incentive wage plans
    3. Salaries and commissions
    4. Payroll deductions and net wages
    5. Employer labor cost
  B. Taxes
    1. Sales tax
    2. Real Estate tax
    3. Income tax

V. The Mathematics of Management and Control
  A. Financial statements
    1. Income statements
    2. Balance sheets
    3. Accounting ratios
  B. Insurance
    1. Property and casualty insurance
    2. Life insurance
  C. Evaluation and Planning
    1. Break-even analysis
    2. Basic statistical measures

Methodology

The teaching of business mathematics has generally been very conservative, based on a lecture-discussion-problem solving approach. New topics are usually introduced by a simple explanation to place the concept to be learned in context, followed by a teacher-worked example; then one or more problems are given to be solved by the students under the teacher's supervision, followed by homework problems, reviews, and examinations. There is nothing inherently bad about this approach, nor has there been any attempt to imply that this method is not associated with success. However, there are many other teaching methods which can be used, either generally or in specific circumstances, to improve student success in business mathematics.

Business math differs from other courses not only by virtue of its specific content but also because of its very nature. It deals with the application of mathematical concepts to practical business situations and problems. Students have been exposed to at least eight years of basic mathematics prior to enrolling in business math. It is indeed unfortunate that exposure is not analogous to assimilation, the result of which is that in most business math classes actual mathematical competency ranges from the very capable student to the student who has been pre-programmed by eight years of math to expect a low level of achievement, if not outright failure. With the latter, the immediate problem is two-fold: combatting the dysfunctional fear of math and making sure that those mathematical competencies which are essential for the course are achieved. Since business math is an applied course, it requires an understanding of basic business operation and terminology. That makes it a natural for integrating and/or coordinating with courses in general business, accounting, consumer education, economics, and distributive education to increase understanding and reinforce learning. An awareness of the problems presented by the course and the students involved will aid the teacher in selecting the modes of instruction best suited to the problems. Some methods which may be helpful are described below.

1. Diagnostic tests are very useful in identifying areas of weakness. However, this use has strong negative connotations to students who have had little success with math. Diagnostic tests can be used to build the confidence of such students by stressing the positive aspects of the results, the areas of competency identified. This can still be combined with remedial efforts to increase the competence of the student.

2. Simulation and gaming can provide a close approximation to real life experience to business math students. When well designed and well written, they are motivational tools in that they demonstrate the relevance of the concepts taught and provide valuable practice in sharpening problem solving skills. They help students to understand the importance of mathematics in the world of business.

3. Individualized instruction can be used to provide much greater flexibility in the classroom. Students who need to review basic math may do so while others can proceed to other topics. While practical considerations necessitate that all students complete some common body of knowledge, many students will learn much more than required content if allowed to select topics which interest them. Since not all members of the class are studying the same topic at the same time, many instructional materials which would be impractical or would not be economical for a whole class can be used by individuals or small groups.

4. Self-paced instruction allows students to progress at their own rates, rather than being restricted to a group norm rate. This not only allows for individual differences in ability, but also can provide more opportunity for the teacher to work with students on a one-to-one basis. Most students appreciate being allowed to progress at their own pace, but some controls must be used to assure that the natural procrastinators complete required work.

5. Modern technology should be used to enhance learning, and not be ignored in the classroom. The widespread availability of low cost electronic calculators makes them a natural for use in the business math classroom. Their judicious use can greatly enhance both motivation and learning by approximating conditions in business (most businesses have a calculator available), removing the drudgery of lengthy hand calculations which enables the student to concentrate on the concepts involved, and reinforcing learning by providing fast answers and the means to check those answers quickly. Printing calculators, programmable calculators, and minicomputers can also be used effectively in the business math classroom when available.

6. Community based projects, such as tours, speakers from the business community and internships with local businesses, all serve to increase the students' understanding of the relevance and importance of business math in the business world. They also serve to improve school-community relations and provide students with an awareness of career opportunities.

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Branscombe, Art. "Checkout on Consumer Math," *American Education*, 11:21-24, October, 1975.

Results of the 1972-3 National Assessment of Educational Progress survey of mathematics abilities indicate that an alarming segment of America's young adults are deficient in basic consumer math skills. Data presented should be of interest to schools and educators in assessing their programs

and courses to assure that their students learn the mathematical competencies necessary to cope with the market place.

Forte, Michael S. "De-Programming Math-Haters," *AICS COMPASS*, 41:7-8, July, 1977.

Many students have strong apprehensions regarding their probable success in business math. Forte suggests several teaching techniques to make math more enjoyable and rewarding to the students, including: the use of calculators; the use of pretests and review of basic math concepts to build confidence; implementing a buddy-system, and the use of a variety of enrichment activities, including games and concrete applications both in and out of the classroom.

Gibb, E. Glenadine. "Calculators in the Classroom," *Today's Education*, 64:42-44, November-December, 1975.

Gibb discusses both problems and advantages surrounding the issue regarding the use of calculators in the classroom. Several concrete examples of calculator use are given. Students' mathematical capabilities can be enhanced by the creative use of calculators in the classroom after understandings have been abstracted.

Greenfield, Blaine S. "Metrics, Methods, and Business Math: A Winning Combination," *Business Education World*, 58:32, May-June, 1978.

Greenfield describes a teaching experiment in which business math students are taught metrics by senior methods students.

Groneman, Nancy. "Calculating Machines and Business Mathematics - A New Era," *Journal of Business Education*, 54:111-13, December, 1978.

Technological advances in the manufacture of electronic display and electronic printing calculators over the last few years have encouraged the trend in schools to purchase only these types of calculators rather than the variety of adding machines and calculators which were previously used. Groneman recommends the combining of business mathematics and calculating machine courses to achieve more efficient instruction.

Kaliski, Burton S. "Algebra or Arithmetic?," *The Journal of Business Education*, 50:289-90, April, 1975.

Kaliski examines the controversy regarding whether arithmetic or algebra should be used in business arithmetic or business mathematics courses at the college level. The approaches are defined and compared through the use of examples.

Karnes, Delbert D. "Challenge for the Business Mathematics Teacher," *The Journal of Business Education*, 51:25-26, October, 1975.

Business mathematics is not solely for the student who is unable to cope with algebra and calculus, nor is it a course in theory. It is a course which applies theory to problems which are of interest to most consumers. Educators should encourage more students to take business mathematics. Students would gain such benefits as: a basic review, use of aliquot parts, significance of consumer credit, home ownership and property taxes, insurance, and taxes.

Long, Thomas E. and Elizabeth C. King. "Teacher Perceptions of the Basic Mathematics Skill Needs in Business Education," *Delta Pi Epsilon Journal*, 17:37-42, May, 1975.

A survey was distributed to all secondary vocational teachers in Pennsylvania to identify the basic mathematics skills that are essential for success in business education and the basic mathematical skills in which students are reported to be least prepared. Findings of the study are reported as rank order listings of these two groups of basic mathematics skills which have implications for business educators.

McAnally, James R. "A Study of Mathematical Competencies Considered Important by Superivsors in Large Retail Firms in the Metropolitan Area of Chicago." Unpublished Doctoral dissertation, Northern Illinois University. (DeKalb), 1977.

This comprehensive survey designed to identify the mathematical competencies considered important by supervisors of entry-level jobs in sales, cash register operations, and merchandise control jobs in large retail firms provides a large volume of data which can be used by business math teachers in the delineation of course content.

Rosenbaum, Roberta. "Satistical Literacy for Business Students," *Business Education Journal*, 25:3-6, Spring, 1978.

While few business students will become statisticians, all will be consumers of statistics and will need to evaluate statistical information to make both personal and business decisions under conditions of uncertainty. The author lists four questions found effective in evaluating statistical information: Who says so? How do they know? Is anything missing? Does it make sense? These can be used along with materials from current newspapers and periodicals to increase students' statistical literacy. literacy.

Schultheis, Robert A. "Individualizing Instruction in Business Arithmetic," *The Journal of Business Education*, 51:111-14, December, 1975.

Individualized instruction should be used to inprove the success of students who have failed often in elementary grades. Schultheis believes that an individualized learning program should allow five components to vary: time, content, sequence, media, and reward.

Several strategies for individualizing a business arithmetic course are discussed including the development of job instruction sheets and the use of checkpoints and self-testing.

Shuch, Milton L. "The Use of Calculators Versus Hand Computations in Teaching Business Arithmetic and the Effects on the Critical Thinking Ability of Community College Students." Unpublished Doctoral dissertation, New York University (New York), 1975.

A carefully controlled experiment was conducted to compare the achievement of community college business math students who used calculators with that of students who used paper and pencil computation. No significant differences were found in either achievement or critical thinking ability.

Walters, George L. "Issues in Teaching Business Mathematics," *Business Education: Yesterday, Today and Tomorrow*, Fourteenth Yearbook, Washington, D.C.: National Business Education Association, 1976, pp. 191-94.

In today's society, numbers confront us constantly and individuals must understand, manipulate, translate, and apply business subject matter. Walters identifies three areas of utmost concern for business math teachers: improving reading development in business math; stressing concept rather than computation in problem solving; and updating course content.

Williams, John S. "Mastery Learning in Business Mathematics," *The Journal of Business Education*, 52:93, November, 1976.

Williams summarizes his dissertation in which mastery learning strategy was compared with conventional learning strategy in a community college business mathematics course. The mastery learning strategy utilized a variety of instructional techniques and evaluation procedures. The conventional strategy utilized the lecture-discussion method and scheduled exams. Results indicated that the mastery treatment accounted for significant improvement in performance when the subject matter was of moderate difficulty.

BASIC BUSINESS AND ECONOMIC EDUCATION PROGRAMS

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BASIC BUSINESS AND ECONOMIC EDUCATION PROGRAMS

INTRODUCTION

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SOURCES OF INFORMATION

BASIC BUSINESS AND ECONOMIC EDUCATION PROGRAMS

Basic business is the contribution of business education to general education and is the name given to the social business subjects: General Business, Introduction to Business, Business I, Consumer Education, Economics, Economic Geography, Business Law, and Business Organization and Management. The goal of basic business and economic education is to prepare students to function efficiently in a business society. Concepts needed by producers, consumers, and citizens provide the content for this area.

The name "basic business" was chosen in 1956 in New York City by twelve educators who were especially interested in the general education aspect of business education. The term, which has gained wide acceptance, is used for classifying articles in the *Business Education Index*. One article on Basic Business and Economics" appears in each issue of the *Business Education Forum*.

The emphasis in basic business subjects changes from time to time. After Sputnik, experts in basic business education believed the emphasis should be on economic education. In the 1960's, the stress was placed on consumer education in the "age of consumerism." In the 70's the emphasis has been on career education where basic business subjects were used for orientation, exploration, and career development. In the decade ahead, basic business subjects will continue to help students develop business, consumer, and economic literacy and also serve as the vehicle for exploring the social dilemmas that confront workers, consumers and citizens: the limits of growth, the impact of a shift from consumption to conservation, resource (energy) depletion, population growth, pollution, unemployment/underemployment, inflation, recession, legal rights and obligations, computer technology, metrication, and the changes and challenges to business enterprise in the 1980's. Basic business education is general education for everyone.

Issues and Problems Within the Basic Business Curriculum

Issue: OVERLAP OF UNITS BETWEEN COURSES

Overlap of units of instruction often occurs in basic business subjects. Some reasons for the existence of this problem are: 1) textbooks often promote overlapping, especially between introductory courses and more in-depth courses; 2) the consumer education mandate has resulted in some departments offering both general business and consumer education classes in order to compete for enrollment from other departments; and 3) some students, especially those of less ability, experience difficulty learning heavy amounts of business terminology and economic concepts offered by business texts, which results in teachers turning to materials more easily assimilated by their students.

The problem of overlapping can be solved through cooperative planning of the courses by all teachers involved. The key is in knowing the overall purpose (objectives) of the course and the units. The primary purpose of the basic (general) business course should be introductory vocabulary, concepts, career exploration, and overview of business. This course should serve as the basis for a more in-depth study of topics under the basic business umbrella.

The main thrust of the other courses—business law, consumer education, economics, and business organization and management—should retain the abovementioned characteristics of the introductory business course; however, more emphasis on *depth* should be provided. Problem-solving exercises and case studies in preparation for both practice in the business world and more specialized study at higher levels should be provided.

Overlapping of course content is not necessarily a problem when conceptualization is advanced and in-depth stages are carefully articulated. Often courses are taught by different instructors with different backgrounds, and from different texts with different approaches. This can result in effective reinforcement of the most important elements of courses and units when carefully constructed objectives are planned and articulated.

Issue: FOCUSING INSTRUCTION ON DEVELOPMENTAL INTERESTS AND NEEDS OF STUDENTS

Basic business courses are relevant to everyday personal and business life. Sometimes these courses deteriorate into rote question-answer term-definition classes under the guide of "class discussion." The basic business teacher must constantly strive to push the level of learning to application and problem solving which apply to real personal and business problems. While a terminology base must be established, the long term effect of the classes lies with application and problem-solving experiences.

The basic business teacher has an extensive arsenal of teaching methods and tools. Most of the tools have been listed in the discussion of the various topics (business law, consumer education, general business); role playing, cases, games, slides, and other strategies are all helpful in going beyond "class discussion and lectures." In each of the courses a real attempt should be made to enliven the courses with a variety of methods and actual business and personal applications. The instructor must experiment with, evaluate, alter, and improve various approaches to meet the interests and needs of students.

Issue: LACK OF TEACHER READINESS TO TEACH BASIC BUSINESS COURSE

Most of the responsibility for teacher preparation to teach basic business courses rests with the teacher training institution. Basic coursework in business law, economics, consumer education, marketing, introduction to business, and many other courses form the content foundation for basic business instruction. The second phase of the teacher training process comes with a specialized methods course in the basic business area with clinical experiences in class and in the high school classroom. This can be accomplished through micro teaching, videotaping, and high school clinical experience. The final phase should include the mandatory assignment of a basic business preparation during student teaching.

After these experiences, effective basic business instruction rests with the individual teacher. The basic business teacher should subscribe to and read business and consumer literature (magazines, newspapers), join professional organizations (Illinois Consumer Education Association, Illinois Business Education Association, National Business Education Association, American Council on Consumer Interests), and take graduate "improvement of instruction" courses in basic business.

General Business (Business I) or Introduction to Business

Rationale and Objectives

General Business (Business I) or Introduction to Business is the course that introduces students to the business world in which they live. The purpose of general business is to explain the role of business in our economic system. Students are a major target market and already have had personal economic experiences as consumers. Since this is the first business course for most students, the content can be organized by the students' three roles: as workers in business; as consumers in society; and as citizens in the economy. The course is generally taught in the ninth or tenth grade and may be one semester or two semesters in length. General Business fulfills the Consumer Education mandate in some districts. The following are general objectives for the General Business course. These objectives may be used as guidelines for the development of measurable objectives.

1. Examine the business, consumer, and economic problems which affect students as individuals and as members of society.
2. Develop an attitude of interest and concern for business as a career possibility.
3. Acquaint students with the institutions and mechanisms of the American enterprise system and how these institutions satisfy human wants and needs.
4. Develop problem-solving skills—know how to define a problem, gather information, identify goals, consider alternative ways of achieving goals, analyze consequences of selecting different methods of achieving goals, and make a choice.
5. Develop a minimum level of competence in computational skills as related to earning income, budgeting, comparative shopping, saving, buying, investing, using credit, insuring, paying taxes and knowing rights and responsibilities as consumers.

Outline of Course Content for General Business (Business I) or Introduction in Business (See Appendix for Expanded Outline)

I. American Business Enterprise
II. The American Economic System
III. The Consumer in the Economy

Methodology

A. **Traditional textbook.** While some people object to use of a textbook, students often disagree. The textbook is a security; it is there as a backup for lectures they did not understand and days they missed.

B. **Supplemental materials.** Using the textbook as a source of basics, the general business teacher can then expand each topic as time allows. Many supplementary materials are free or inexpensive such as those from various Federal Reserve branches, the Consumer Information Center in Pueblo, Colorado, and the New York Stock Exchange. In addition, the general business teacher should ask the local bankers and realtors for materials which they may have or will be glad to secure for the school.

Various materials could be purchased instead of workbooks. For example, materials from Sears, Roebuck and Company, Household Finance Corporation, and Proctor and Gamble are well written on an 8th-9th grade vocabulary level.

C. **Audio-visual materials.** When students have been regularly exposed to television, they are dissatisfied with mere reading exercises. Free or inexpensive filmstrips are available from various firms.

Excellent transparencies can be made of checks, budget books, financial statements, etc., as illustrations of actual documents used in business.

D. **News articles.** The general business teacher has an excellent opportunity to keep the course relevant, since nearly every day something in the news pertains to the course. The teacher could prepare a bulletin board display, students might be assigned to develop a different display each week, or students could be required to keep a notebook of clippings.

E. **Group work and case studies.** While these may require additional teacher preparation, the extra enthusiasm generated is well worth it. Teachers of General Business find students teaching concepts to each other when they are allowed to work together occasionally for variety.

F. **Individualized instruction.** Individualization of instruction can be accomplished with Learning Activity Packets or with other do-it-yourself methods. Research indicates that students do not necessarily learn more but this does provide variety for an occasional unit and is an excellent way for a student to do make-up work.

Consumer Education

Rationale and Objectives

The Illinois General Assembly again amended "the School Code" (Sec. 27-12.1 Consumer Education) in 1977. The consumer education mandate now includes installment purchasing, budgeting, comparison of prices, and an understanding of the roles of consumers interacting with agriculture, business, government, and labor unions in formulating and achieving the goals of the mixed free enterprise system.

Consumer Education requires that all students in the public schools in grades 8-12 meet minimal instructional standards in consumer education. The minimum program consists of nine weeks of instruction (45 class periods, a period consisting of 50 minutes) or its equivalent.

At the core of consumer education are students—students who look at themselves to see what they want out of life and how they can most effectively attain their goals. Essentially problem-solving, consumer education objectives include helping a student:

1. To become an informed consumer
2. To understand the rights and responsibilities of the consumer in society
3. To develop responsible attitudes toward the use of resources
4. To develop a sound decision-making process based upon one's individual goals and values
5. To utilize sources of information to facilitate greater satisfaction in making consumer decisions
6. To understand the interdependent roles of the consumer, workers, and citizens in our economy
7. To participate more fully in the consumer aspects of family life.[1]

Outline of Course Content

While the suggested content outline has remained much the same since 1968, one new section has been added to the Illinois guidelines for consumer education. This new division, human services, includes the following objectives. To help students:

1. Recognize the importance of human services in the consumer's life.
2. Distinguish between the purchase and use of *services* in contrast to *products*.
3. Understand the differences between the purchase and use of services in the *public* and *private* sectors.
4. Become aware of the wide *variety* of public services available to consumers.
5. Use public services in a responsible fashion.
6. Recognize that everyone has a responsibility to demand that services be of high quality.
7. Participate intelligently in activities designed to control and improve public and private services.
8. Realize that government services are not free but increase both taxes and regulations.

Consumer Education topics included in *Consumer Education in Illinois Schools: Grades 8-12* are as follows:

I. The Individual Consumer in the Marketplace
II. Money Management
III. Consumer Credit
IV. Goods and Services
V. Insurance
VI. Savings and Investments
VII. Taxes
VIII. The Consumer in Our Economy

The publication includes a detailed course outline which is presented in Appendix E. Objectives, suggested activities, and instructional material are also included.

Methodology

The consumer educator has a wealth of approaches which may be used for presenting the course material. Building student interest is made easier by the relevance of the material and the richness offered by the students' backgrounds. In addition to lecture and discussion techniques, an exciting array of strategies may be selected to lend variety to the classroom.

1. Bulletin boards may be used for instruction as well as decoration. A bulletin board on sources of energy, auto insurance coverages, lease terms, or other displays may be accompanied by a worksheet completed by the student who finds the answers on the bulletin board.
2. Correspondence is a useful device to bring first-person technical opinions into the classroom. Letters asking advertisers to substantiate tests, legislators to defend actions, or experts to define problems add realism and anticipation to classroom reports and assignments.
3. Questionnaires or opinionnaires designed and administered by students bring others' experiences and new-found realism to class assignments.
4. Pretests that survey student backgrounds are an excellent method to introduce a consumer course. Action pretests may include taste tests, label reading, and lease definitions as well as many other real-life demonstrations.
5. Teacher- and student-developed case problems which investigate real-life situations can take the form of stories, role playing, or short skits.
6. The consumer educator will benefit by a complete section of useful books in the school library. One way to develop a complete, up-to-date library is to join the American Council on Consumer Interests. This organization pub-

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[1] State Board of Education, Illinois Office of Education. *Consumer Education in Illinois Schools: Grades 8-12.* (Springfield, Illinois, 1978)

lishes a monthly newsletter which includes an update on new books, magazine articles, and research. A complete library will facilitate all forms of student research.

7. Consumer education lends itself to utilization of guest speakers. The interview method is a good way to infuse the speaker's knowledge and experience. If an insurance agent is to be the speaker, have the agent interview a student as though the student is purchasing coverage. If the topic is consumer credit, make it an interview for a loan. Place the speaker in a natural surrounding and the result will be valuable.
8. Teacher- or student-prepared slides on buying a used car, reading the financial pages, home buying, or many other subjects help the classroom merge with real-life situations—especially those for which field trips are difficult to arrange.
9. Games which simulate popular television games are an excellent means of content review. Various types of puzzles are also helpful in reviewing material.
10. The video-tape recorder can add interest and intensity to role playing, presentations, demonstrations, and other classroom activities. When the students are performing in front of the camera, the results are many times more serious and surely more fun for the students.
11. Newspaper advertising lends itself to teaching. While students are reading ads for food, clothing, real estate, investments, and automobiles, the ads become a good source for definitions, explanations, and illustrations—either by themselves or as transparency lessons.
12. Worksheets encourage the student to read more closely when used as study guides or notetaking guides. They can also help the teacher to see if the student can find examples of data being studied.

Business Law

Rationale and Objectives

The study of the law in the 1980's will afford the student and teacher an opportunity to investigate the effect of sweeping new developments that characterized the legal climate of the 1970's. A new awareness of the role of women, the multitude of lawsuits in heretofore untried areas, and the effects of political corruption will make profound marks on the approach used in analyzing legal concepts and thought.

Along with these new thoughts comes the traditional reason for incorporating a law-related course in the high school curriculum. The need for a better understanding of personal legal rights and obligations is more important. The business educator, among others, is given the opportunity to provide the student with useful personal information.

The following outline suggests one way to incorporate these ideas into the curriculum at the eleventh- or twelfth-grade level. Teachers in this area will find that flexibility and creativity are desired elements for success.

Outline of Course Content*

I. The American Legal System
II. Formation of Contracts
III. Bailments
IV. Law of Employment
V. Law of Property
VI. Law of Sales
VII. Insurance
VIII. Business Organization

For those schools not offering a one-year course in Business Law, the following is offered as a suggested topical outline.

9 weeks: Units I, II, and IV.
1 Semester: Units I, II, III, IV, and V.

*See Appendix E for complete outline

Methodology

Skits and Role Playing can add realism to certain subjects. In contracts, two students can review the elements of a standard lease. In labor units, sides can be organized to argue a collective bargaining agreement.

Field trips can be valuable in developing and maintaining interest. Most teachers can arrange field trips to the County Courthouse where trials and other law-related activities are held. Major metropolitan areas afford Federal Courts, the FBI, and Consumer Fraud Bureaus.

If the course is a year in length, the teacher can incorporate legal research into the second semester. By then, the students have become familiar with court cases and activities and have the tools to investigate criminal and civil litigation in the nearest university or county law library.

A mock trial can be a fascinating experience. "Creating" and "staging" a crime or a tort permits real investigation, questioning, and ultimately carrying forth the case to trial. Jury selection from an unbiased source (study hall or cafeteria) adds to the reality of the event.

In lieu of the traditional research paper, students can be asked to keep a log of legal-related activities heard on T.V. and radio or read in magazines or newspapers.

Guest speakers should speak to the class from time to time. In addition to police and lawyers, representatives from fraud bureaus and political offices can add a new perspective to course content.

Allow students to use selected days for debates. The legal world is full of controversial topics that can spark comment from all students present. Using controversial and challenging cases during particular units also serves as a springboard from which a topic can be developed; e.g., raising legal age for drinking.

Those who teach business law on a regular basis often are able to develop a more interesting and challenging course. Constant updating and reading will be required. Using the argumentative approach to teaching becomes a necessity. It maybe necessary to admit you don't know the answer when students ask "tricky" questions.

The ultimate rewards for business law instructors are (1) challenging themselves to present one of the most intricate areas of the society in a concise, updated, and interesting manner, (2) giving students a better perspective of the law, thus improving their personal welfare, and (3) stimulating some young minds toward a legal career.

Economics

Rationale and Objectives

The economics course recommended for eleventh or twelfth grade should provide meaningful introduction to contemporary economic problems. Emphasis should be given to using the current economic news and events that have an impact on students, their families, and their future to stimulate interest and motivation. The introductory course should:

1. Help the students to conceptualize the economic institutions of our economy: competition, private property, consumer sovereignty, profit motivation, and the market mechanism.
2. Acquaint the student with economic performance measurements and tools of analysis: Gross National Product, Consumer Price Index, real income, productivity, price determination, opportunity costs.
3. Provide the student with concepts, understandings, and facts necessary to make individual and group decisions of economic consequence: distribution of income, taxation, fiscal policy, monetary policy, poverty, government regulation, and international interdependence.
4. Provide the student a framework of a dynamic economic system: market mechanism, circular flow analysis, role of government, and comparative economic systems.

These general objectives can be used to develop specific measurable objectives for use by the students. Equipped with an overview of the structure of the economic system, the student is able to study the relationship of the various economic institutions and how they interact in the economic process. The teacher must strive to retain and build upon the student's curiosity and concern about complex contemporary economic problems: energy, resource depletion, conservation, population growth, pollution, unemployment, underemployment, inflation, recession, and the limits of growth.

The student should be shown the use of the analytical tools of the economic discipline, but the teacher must be careful not to insist upon rigorous development of analytical tools in the introductory course. The introductory course should be the beginning of a way of understanding the economic events in the students' lives.

Suggested Outline of Course Content for Economics*

I. The Importance of Economics
II. The Economic Problem: Economic Wants
III. The Market Economy
IV. Economic Principles in the Marketplace
V. Economic Measurements
VI. Economic Stability and Growth
VII. The World Economy

*See Appendix E for complete outline.

Methodology

The teacher may be a purveyor of information or a guide to discovery as well as an organizer of the student's learning experiences. It is extremely important that the student be in a frame of mind for learning. This can be achieved by relating materials to the student's interest, background,and experiences and by drawing from the daily economic news and events.

1. **Problem-Solving and Student-Teacher Planning.** Committees can be organized to gather information from various sources. The exchange and evaluation of the information should be planned cooperatively between the teacher and the students by means of classroom activities such as debates, panel presentations, and investigations. The key to the entire process is student involvement and teacher guidance.

2. **Expository Teaching (modified lecture).** The lecture method is probably the most criticized and yet most commonly used approach to instruction in economics. The structure or organization of the concepts can make a difference in achievement of the students. Expository teaching can be improved with the use of behavioral objectives, transparencies, and appropriate structure of content.

3. **Classroom Resource Center.** The classroom can become a learning laboratory, with a section of the room furnished, equipped, and supplied as a learning resource center. A table becomes a work area, a display, and a demonstration focus, or a place for discussions, conferences, and panel presentations. Racks and shelves should be available for periodicals, books, pamphlets, maps, charts, graphs, and other illustrative materials.

An economics learning lab should contain annual reports, government brochures and pamphlets, national publications, teaching units, daily news events, and student-prepared visual aids. One purpose of the laboratory approach is to familiarize students with the range of reading in economics available to them and to encourage development of a lifelong interest in keeping current on economic developments.

4. **Field Experiences.** Many economic concepts can be illustrated best by taking students out of the

classroom and into the community to observe, firsthand, people who deal with these concepts. Preparing the student for the field experience and follow-up activities provide lasting educational benefits from field experiences.

5. **Guest Speakers.** The community can be moved into the classroom with a guest expert. Again, student preparation and follow-up activities enhance the educational benefits available from guest experts.

6. **A Community Corporation as a Partner in the Classroom.** To strengthen the learning about economics and to bridge the gap between the textbook or classroom and the real world of business, enlist the financial and active participation of a local corporation to provide a laboratory for a high school economics class. The community corporation can provide materials, guest experts, field experiences, and actual examples and illustrations of real world economics.

7. **Student-Conducted Interviews.** When it is not possible to have a particular guest speaker, or when a group field trip cannot be arranged, it is possible to gain access to the source through a student-conducted interview. The teacher should make the initial contact to obtain permission for a student to interview or visit. The critical element in this procedure is the proper preparation of the student interviewer. A committee of class members or the entire class can help the student to prepare a list of questions designed to obtain the information needed. The student should be encouraged to tape record the interview. After the interview, the student can present an oral report to the class.

8. **Telexplorer.** The Telexplorer, from a Career Guidance Center, (See Appendix D) provides opportunity for students to learn about careers through local resource people without the resource person leaving his/her job.

Business Organization and Management

Rationale and Objectives

This course provides students at the eleventh or twelfth grade with a general survey of the business world in order to allow them to develop an understanding of the vocabulary of business, to explore career opportunities and future fields of specialty study in business, and to better understand the role of business enterprises in society as a whole. *Course objectives* are to enable the student to:

1. Understand the overall, general nature of the world of business and its major components.
2. Appreciate conceptually how modern business fits into and contributes to the American economy as a whole.
3. Know the nature of the American capitalistic economy, how it differs from other major economic systems existing in the world, and the importance of international trade.
4. Explore possible future careers in the business world and understand paths of academic preparation and experience for entry into a realistic, meaningful, and rewarding career in the business area chosen.
5. Gain a conceptual understanding of the terminology commonly used in the business world.
6. Understand business-related concepts that will be useful in future roles as consumer, parent, and provider of business goods and services.
7. Attain a basic understanding of and appreciation for the main specialized areas of business study: principles of management, personnel management, marketing management, production and purchasing management, finance, accounting and budgeting, data processing, marketing management and distribution, and business law and ethics.

From these general objectives, measurable objectives can be developed for use with the students.

Suggested Course Outline*

I. Perspectives on American Business Enterprise
II. Management of the Business Firm
III. Financing the Business Firm
IV. Quantitative Tools for Managerial Decision Making in Business
V. Marketing and Distribution of Business Goods and Services
VI. The Environment of Business

*See Appendix E for complete outline.

Methodology

1. Class discussions based on current articles from newspapers, magazines, television news shows, and other sources on topics related to the subject matter which may be procured by the instructor and/or students.
2. Scrapbooks of current articles prepared by students on specific topics or general course content.
3. Stock market project assigned to individual students or student groups who "chart" chosen stock issues from daily newspapers over a given period of time, as a semester.
4. Bulletin board displays prepared by the instructor, individual students, or student groups.
5. Films, film strips, slides, or movies relating to a specific topic may be used to illustrate a specific point or a general overview.
6. Reports based on library research may be given by individual students or student committees.
7. Student panels, forums, or debates may be used to present the controversial issues such as "Business Ethics."
8. Case studies selected from relevant textbooks or prepared by the instructor may be completed by individual students or student committees.
9. Exhibits may be prepared by the instructor, individual students, or student committees.
10. Demonstrations, skits, or plays may be written and/or presented by groups of students.

11. Field trips to local businesses and agencies such as manufacturing plants, retail stores, banks, stockbrokers, accounting firms, data processing operations, etc., provide an opportunity for students to view business in operation.
12. Guest speakers from local businesses and agencies may be engaged to discuss careers in various segments of business.
13. Pre-tests and post-tests on segments (units) of subject matter may be used to determine the knowledges and skills acquired during the time a topic has been discussed.
14. Students may collect samples of forms, pictorial descriptions, etc., for opaque projector presentation.
15. Chalkboard presentations may be made by the instructor or individual students or student groups illustrating such concepts as "balance of trade" and "balance of payments."
16. Class discussions based on topic assigned.
17. Students may interview with representatives of local businesses and agencies. The interviews could be followed by in-class reports or replays of tape recordings of the interviews. Class discussions of the content and/or interviewing techniques used may follow the presentation.
18. Objectives for each unit of study from textbook or prepared by the instructor or student groups should be carefully discussed before studying the unit.
19. Post-study checks provided by the teachers for use by individual students or student groups help to assure that study objectives have been realized.
20. Concept emphasis assures that all students have "internalized," in their own words, a meaning for the new terms presented in a unit of study.
21. Free and inexpensive subject-related materials may be supplied by associations and local businesses and organizations. Examples of the materials are corporate annual reports, financial statements, and career information.
22. Games provide an opportunity for students to apply concepts learned in the classroom, such as for decision making.
23. Crossword puzzles based on unit-related terminology provide an alternative method in teaching definition of terms.
24. Role playing exercises such as one involving the importance of the four P's of marketing: product, price, promotion, and placement might be developed by teacher or students.
25. Problem-solving exercises provide opportunity for application of knowledge to practical problem situations.
26. Independent study project developed cooperatively by the instructor and individual students.
27. Programmed learning "packages" developed by the instructor or commercially prepared.
28. Mastery learning projects encourage students to progress at their own pace and to repeat elements of a unit until they have satisfactorily mastered it under the direct guidance of the instructor.
29. Individual instruction may be used which emphasizes for each unit of instruction, the instructor (1) first works with the entire class as a group, (2) then works with smaller groups who have not mastered the material, and (3) finally works with individual students for mastery.
30. Student self-evaluation of learning may be used to encourage development of the ability to use judgment in self-development and to seek instructor help when achieving learning objectives.
31. Management by objectives (MBO) approach to learning is based on a concept used in business. Instructor and individual students (1) agree on learning objectives to be reached by the student early in the term, and agree upon a "path" to be followed for their attainment, (2) then, periodically and jointly assess progress, (3) then, jointly, decide upon acceptable modifications to the attainment paths, and (4) finally evaluate progress.
32. Computerized management games prepared by the instructor or student groups or obtained commercially provide an opportunity to integrate modern technology in the learning process.
33. Computer-oriented career information exercises which provide students an alternative source in the development of an awareness of careers available in the field of business.

Sources of Information Pertaining to Basic Business Courses (Annotated)

Research on basic business courses and methodology is proliferating at a rapid pace. It is nearly impossible to pinpoint specific sources and articles, as they are being supplemented readily with additional, newer sources. Therefore, no attempt will be made here to list specific books and articles; rather, the latest editions of the following sources, among many, will serve better as references for pertinent, recent research:

The Balance Sheet. Source: South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. Articles of current interest to business educators, including basic business instructors. Robert Nesbit, ed.

Business Education Forum. Source: National Business Education Association, 1906 Association Drive, Reston, VA 22091. Published eight times a year. O. J. Brynside, Jr., ed.

Business Education Index. Source: Delta Pi Epsilon, Gustavus Adolphus College, St. Peter, MN 56082. An annual index of business education articles, textbooks, and graduate research projects. Of particular interest are the subject headings of: basic business education, business organization and management, career education, consumer education, curriculum, economics, evaluation, extra-curricular activities, high school, junior college, junior high school, marketing, metrics, retailing, salesmanship, and work experience.

Business Education World. Source: Gregg Publishing Company, nearest regional office. Published five times a year. Articles of current interest to business educators, including basic business instructors. Susan S. Schrumpf, ed.

Collegiate News and Views. Source: South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. Published each fall, winter, and spring. Articles of current interest on business education and basic business and related topics. Although the main thrust of content is college business education, articles are also of interest to high school and community college instructors. John M. McDonough, ed.

Delta Pi Epsilon Journal. Source: Delta Pi Epsilon National Office, Gustavus Adolphus College, St. Peter, MN 56082. Published quarterly. Articles dealing with the philosophy, methodology, and research in business education including basic business education, often based on results of recent intensive graduate research.

ERIC Clearinghouse. Source: ERIC Clearinghouse, 96 Powell Library, University of California, Los Angeles, CA 90024. Topical papers are available on various aspects of education, especially newer methodology, at various prices. Contact ERIC Clearinghouse for latest lists.

National Business Education Association. Annual yearbooks since 1962. Source: NBEA, 1906 Association Drive, Reston, VA 22091. (1979)

Chapters on relevant topics found in recent editions of the yearbook include:

"Curriculum Development in Education for Business," Yearbook No. 15, James W. Crews and Z. S. Dickerson, Jr., eds., 1977.

"Business Education: Yesterday, Today and Tomorrow," Yearbook No. 14, Ruth B. Woolschlager and E. Edward Harris, eds., 1976.

"Foundations of Education for Business," Yearbook No. 13, Gladys Bahr and F. Kendrick Bangs, eds., 1975.

"Relevance in the Education of Today's Business Student," Yearbook No. 11, Gerald W. Maxwell and William L. Winnett, eds., 1973.

"Changing Methods of Teaching Business Subjects," Yearbook No. 10, Leroy Brendel and Herbert Yengel, eds., 1972.

"Contributions of Research to Business Education," Yearbook No. 9, Calfrey C. Calhoun and Mildred Hillestad, eds., 1971.

"The Emerging Content and Structure of Business Education," Yearbook No. 8, Ray G. Price, Charles R. Hopkins, and Mary Klaurens, eds., 1970.

Teaching General Business, by Betty Jean Brown, Delta Pi Epsilon Rapid Reader No. 1, Delta Pi Epsilon National Honorary Professional Graduate Fraternity, 1978.

Teaching Consumer Education by David Graf, Delta Pi Epsilon Rapid Reader No. 2, Delta Pi Epsilon National Honorary Graduate Fraternity, 1978.

South-Western Publishing Company monographs. Source: South-Western Publishing Company, Cincinnati, OH 45227, or nearest office. This firm periodically publishes monographs which deal with topics of current interest in business education, including basic business education.

This We Believe. Source: Delta Pi Epsilon, Gustavus Adolphus College, St. Peter, MN 56082 or National Business Education Association, 1906 Association Drive, Reston, VA 22091. Inexpensive. Philosophical statements on topics of current interest in business education issued by the Policies Commission for Business and Economic Education. Of particular interest to basic business instructors: "This We Believe About the Role of Business Education in Career Education," (1973); "This We Believe About the Role of Business Education in Consumer Education," (1973); and"This We Believe About the Meaning of the American Work Ethic," (1975).

ACCOUNTING PROGRAMS

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ACCOUNTING PROGRAMS

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ACCOUNTING PROGRAMS

FIRST-YEAR ACCOUNTING

Rationale and Objectives

Accounting teachers are keenly aware of the need for financial recordkeeping in a complex economy where title to billions of dollars is transferred every business day. Nevertheless, they are often called upon to justify the existence of their courses; therefore, what is obvious to them is not so readily apparent to everyone. A rationale for accounting is set forth in this section, along with a statement of the objectives for first-year accounting.

Rationale

Accounting exists because it is an essential element in the orderly functioning of governments and commerce. It is imperative that written records be maintained which show details of business transactions. Records must reflect *who* owes *what* to *whom.* The profitability or lack of profitability of an undertaking must be measured, and management needs records that provide a basis for decision making.

History shows that accounting has played an important role in the lives of people, firms, and nations for thousands of years. For example, archeologists have unearthed clay tablets containing accounting records, and they have determined that these records date back to 3,300 B.C. The clay tablet records were kept by scribes who recorded—with a stylus—barter contracts, sales, money-lending transactions, and receipts and disbursements. These scribes might very well be called early-day accountants.[1]

Despite this ancient origin of financial recordkeeping, the theoretical framework for modern double-entry accounting was not reduced to writing until 1494. It was then that the Franciscan monk, Luca Pacioli, undertook to explain the theory of debit and credit in his important work, *Everything About Arithmetic, Geometry, and Proportion.*[2] The principles he set forth are valid today, although many additional postulates have been formulated and modified since the time of Pacioli. Procedures have changed radically, too, in order to meet the demands of rapidly expanding commerce, to comply with government regulations, and to utilize new technology.

People became accountants through the ages chiefly by serving as apprentices, but there have also been private teachers of accounting for centuries. For example, teachers were offering private instruction in accounting to settlers in America soon after the colonies were established. When Franklin founded his Academy in 1750, bookkeeping was quickly added to the curriculum, and it was an important course in the first public high school soon after its organization in 1821.[3]

Bookkeeping, accounting, and recordkeeping remain important courses in American high schools today, enrolling about 750,000 students each year.[4] Many of these students enroll in the course for its general education value, but a substantial number are taking the course because of its vocational value.

Employment Opportunities. Employment in accounting is expected to increase about as fast as the average for all occupations through the mid 1980's. The Bureau of Labor Statistics estimates that there were 865,000 employed accountants in 1976 and that there will be 51,500 annual job openings in the field through 1985. College graduates will be preferred for these positions.

The Bureau classifies accountants as administrators but includes "bookkeeping workers" in the clerical category. It expects employment of clerical workers to increase faster than the average for all occupations through 1985. Many of these workers will use a knowledge of bookkeeping in their jobs. In 1976, there were 15.6 million clerical workers employed, and 10 million job openings were projected annually through 1985.

The outlook for bookkeeping workers is less reassuring than it is for clerk-typists, stenographers, and others in the clerical grouping. Employment of bookkeeping workers is expected to grow more slowly than the average for all occupations during the 1975-85 decade because of the increasing use of bookkeeping machines and computers. Nevertheless, job openings are characterized as "numerous," with

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[1] Ronald L. Vaughn, "A Brief History of Accounting" (Macomb, IL: Center for Business and Economic Research, Western Illinois University, 1977), p. 3. (Mimeographed)

[2] *Ibid.*, p. 13.

[3] Herbert A. Tonne, Estelle L. Popham, and M. Herbert Freeman, *Methods of Teaching Business Subjects* (3d ed.; New York: Gregg Division/McGraw Hill Book Company, 1965), p. 291.

[4] Vernon A. Musselman and others, *Methods of Teaching Accounting* (2d ed.; New York: Gregg Division/McGraw Hill Book Company), p. 1.

95,000 annual openings estimated through 1985. Most of these openings, however, will come about because of the need to replace workers who have died, retired, or left their jobs—not from growth in employment opportunities.[5]

Minimum requirements for these bookkeeping jobs can be met by high school graduates with a background in business mathematics and accounting. However, many employers will give preference to more mature applicants who have had some experience in the field and/or who have completed some accounting courses at a community college.[6]

Young people who aspire to work as accountants should obtain as much education and work experience as possible before entering the field full time. Those who work as full-fledged accountants will find employment opportunities in the public, private, nonprofit, and government sectors. Many accountants develop a specialty after a period of time, devoting most of their energies to auditing, tax accounting, or management services.

Objectives

Students enroll in first-year accounting for a variety of reasons. It is the responsibility of the teacher to determine the educational and/or vocational objectives of all students and to help them attain those goals. Some of the most widely-recognized objectives are discussed in the paragraphs that follow.

To learn about business and how it operates. This general education objective highlights a value of first-year accounting for any serious student. All citizens need to be informed about business and its operations if they are to function effectively in a mixed free-enterprise economy. In the first-year course, students learn how business is organized and how it carries on its operations. They develop a working knowledge of business records and business forms; and they learn how accounting data are used in decision-making. Learners become acquainted with banking services that are available to both business and individuals. In addition, they record transactions that emphasize the importance of credit and that show how it can be used wisely. Students study payroll procedures, compute earnings and deductions, and become knowledgeable about taxes that must be paid by business and by individuals. They learn how to compute taxes and complete tax returns. In a society that is increasingly technology-oriented, students profit from an introduction to data processing. They become acquainted with computers and perhaps watch them in operation. Pupils see in a new light many everyday things that are associated with computers: the magnetic ink characters on checks, universal product codes on items purchased, embossed credit card account numbers, invoices and end-of-month statements, etc. The vast savings of time and money afforded by computer use become apparent to them.

To prepare for an accounting-related business career. First-year accounting helps prepare students for a wide range of jobs in business. Accounting knowledge and skills are used directly by many workers in positions such as bank tellers, accounts receivable and accounts payable clerks, billing clerks, retail salespeople, inventory clerks, business machine operators, and many others. Accounting knowledge helps them to secure initial employment, perform their jobs more efficiently, and understand how their jobs fit into the overall picture.

To gain a background for advanced study. A study of high school accounting provides students with insights, understandings, skills, and knowledges that are helpful in accounting courses at the college level. It is in the high school course that many young people first develop a strong interest in accounting—an interest that leads them to major in accounting at the college level and go on to a successful career in private, public, or government accounting.

To train for employment as a bookkeeper. Full-charge bookkeepers are still used by many small concerns, although job titles vary from firm to firm. The student who has completed the first-year course in accounting may secure an entry-level position that, with experience, will lead in a short time to a full-charge position.

To develop consumer skills. Consumers need to be skillful in keeping family financial records such as budgets, bank records, and investment records. They also need skill in interpreting financial statements of companies in which they have an interest. A knowledge of business forms and procedures will help them to conduct their personal business affairs more efficiently and more intelligently. Keeping needed records for tax purposes and preparing tax returns are less arduous for citizens who have studied accounting.

In a well-designed high school accounting course, there is emphasis on analysis, logical thinking, accuracy, neatness, punctuality, self-discipline, and self-reliance. These qualities, once developed, are helpful in managing personal finances and in meeting citizenship responsibilities.

General objectives, such as those just discussed, help the teacher to view the course as a whole, to structure it, and to engage in long-range planning. When planning on a week-to-week or day-to-day basis, however, the teacher will want to prepare behavioral objectives and measure student progress toward meeting those objectives. With respect to a specific lesson, for example, the teacher might formulate a behavioral objective similar to one of the following:

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[5] U. S. Department of Labor, Bureau of Labor Statistics, "The Job Outlook in Brief," *Occupational Outlook Quarterly*, Spring, 1978, pp. 6-33.

[6] U. S. Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Handbook* (1978-79 ed.; Washington: Government Printing Office, 1978), p. 92.

"Given a completed worksheet and appropriate accounting forms, the student will be able to journalize and post the required adjusting and closing entries, within a reasonable time and with perfect accuracy."

"Given an adjusted trial balance consisting of 8 real and 12 nominal account balances, the student will be able to determine the net income or loss for the period within 5 minutes, and with perfect accuracy."

"Given statement paper and a list of 12 asset and 4 liability account balances, the student will be able to prepare a balance sheet within 12 minutes, and with perfect accuracy."

Grade Placement and Course Content

Accounting should be offered as near to the point of actual use as possible—in the senior year. If two years of accounting are offered, then instruction begins in the eleventh year. When first-year accounting can be offered only in alternate years, juniors should be admitted to the first-year course.

Repetition of the accounting cycle is the essence of a first-year accounting course, and a knowledge of the cycle is basic to mastery of advanced topics and procedures.

The subject matter of the first-year course usually consists of the following elements:

I. Preparing for a career in business
II. The complete accounting cycle applied to a service concern
III. The complete accounting cycle applied to a merchandising concern
IV. Data processing
V. Special problems and procedures
    Credit transactions
    Deferrals and accruals
    Fixed (plant) assets and depreciation
    Multicolumnar and special journals and subsidiary ledgers
    Partnerships and corporations
    Payroll procedures
    Personal income taxes
    Petty cash, cash, and banking services
    Sales taxes

Topics listed under "Special problems and procedures" are arranged alphabetically rather than sequentially. The sequence followed will depend upon the wishes of the teacher and possibly on the textbook used. One multicolumnar journal with subsidiary ledgers might be a part of the second cycle, with several special journals taken up when working through the cycle a third time. Payroll procedures could be presented either before or after the unit on data processing. Banking services might be studied as a part of either the first or second cycle. Some teachers do not include a study of partnerships and corporations in the first-year course at all.

A more detailed outline of subject matter for the first-year course, subject to modification by individual teachers is presented at the end of this section.

Students go through the cycle only once in some schools, after which they begin work on training modules designed to prepare them for immediate employment. Specific jobs for which they could choose to train include: payroll clerk, accounts receivable clerk, billing clerk, etc.

Issues In First-Year Accounting

Five issues are presented. No attempt is made to resolve the issues, and no judgment is expressed as to whether they should exist as issues. Two points of view are given in each case, and for purposes of contrast are possibly overstated. Sometimes an issue is a matter of degree and not an "either-or" proposition.

Issue: Is the first-year course "bookkeeping" or is it "accounting"?

Opinion A. The image of "bookkeeping" as it has evolved is unfavorable, and students are not likely to be attracted to the bookkeeping course or to a career in this field unless the course title is changed to "accounting." The latter term presents a better image, is up-to-date, and holds considerable promise as a career field. Further, the emphasis in high school courses has shifted from the procedural to the conceptual. It is no longer concerned chiefly with the origination and processing of data; rather, it is more concerned with analysis, interpretation, and the use of accounting data in decision-making. Thus, the course is more appropriately entitled "accounting."

Opinion B. High school graduates who have completed the first-year course possess entry-level skills, and that is all. They are not ready for employment as accountants. Accounting jobs are filled by people with at least some post-secondary education, including several courses in accounting. The thrust of a course cannot be changed by merely changing the title. It is a disservice to students to call the high school course anything but bookkeeping. The classical definitions of bookkeeping and accounting distinguish between the two. *Bookkeeping* is concerned with clerical aspects of accounting: recording and classifying. *Accounting* emphasizes summarizing transactions and interpreting the results thereof. Analytical skill and systems design are an important part of accounting. The only gray area lies in the preparation of financial statements—clearly a function of the accountant, but a major topic in the high-school course. First-year "accounting" is chiefly a bookkeeping course and should be labeled as such.

Issue: Should the first-year course emphasize preparation for a full-charge job, or should it prepare students for immediate employment in specialized jobs?

Opinion A. The number of full-charge bookkeeping jobs available to high school graudates is severely limited. Many such jobs, when available, are in small offices in small towns and involve a number of additional office duties. Even those students who are well-qualified to assume full responsibility for a firm's accounts might not be considered mature enough by prospective employers. On the other hand, there are many bookkeeping-related jobs available that call for only a limited knowledge of the accounting cycle. The first-year course will serve students better if it provides for the completion of the accounting cycle in its simplest form only. This should be followed by the completion of packets or modules designed to prepare students for immediate employment as accounts receivable or accounts payable clerks; payroll clerks; inventory clerks; billing clerks; or myriad other specialized jobs. The student should make a study, in class, of employment opportunities in bookkeeping and bookkeeping-related jobs. Then the student should select one or two jobs that he or she would like to qualify for and spend the rest of the time in the course becoming employable in those jobs. Many students who would have difficulty dealing with the cycle except in its simplest form can, through this procedure, train for a specific job and enjoy success in it.

Opinion B. The first-year course should do more for average and above-average students than qualify them for immediate employment in entry-level jobs upon graduation. An understanding of the cycle is part of the essential background for students who aspire to careers in bookkeeping/accounting. This understanding is best developed by repeated references to, and work with, the cycle in class. Students should leave the course with a variety of skills, knowledges, and understandings that will enable them to advance on the job. They should have a broad perspective of office work and an understanding of the interrelationships among various office jobs and phases of a firm's operations. Even though high school graduates with this background might not be able to secure employment immediately as full-charge bookkeepers, they will be equipped to advance quickly from entry-level positions to more responsible jobs as they gain maturity.

Issue: Should practice sets (simulations or applications) be a part of the first-year accounting course?

Opinion A. There is obviously a place for a few long problems in the accounting course, but practice sets cost too much money and take too much time. The benefits are just not as great as the cost. Many students who are having difficulty with elementary concepts would be much better off doing remedial work than struggling with practice sets. Teachers often do not really "teach" during practice set time, and many students depend on classmates to do their work for them.

Opinion B. Most students seem to enjoy working the first practice set, so this experience is motivational. It is valuable in helping students to synthesize—to bring together into a whole the various concepts and procedures that had to be mastered separately. When students are working practice sets, they are becoming acquainted with source documents and their uses; this is a valuable experience. The use of practice sets gives students a chance to test their knowledge, to be self-reliant; and it illustrates vividly the importance of being accurate in detail work.

Issue: How much time should be devoted to a study of data processing in the first-year accounting course?

Opinion A. Accounting and data processing are so interrelated that any attempt to separate them is unrealistic in the 1980's. Time spent on data processing topics in first-year accounting adds to, rather than takes from, the course.

A substantial data processing unit (consisting of from 10 percent to 25 percent of class time for the year) should be a part of the course. In addition, data processing terminology and extensive flowcharting exercises must be included. As each major accounting topic is considered, data processing implications and applications should be discussed and illustrated. This plan represents minimal coverage, and it is essential if the first-year course is to serve a useful purpose.

Opinion B. Accounting and data processing are interrelated, and there should be a major unit on data processing in the first-year course. Data processing terminology should be used throughout the course, and some attention should be given to flowcharting.

Teachers already find it difficult to do justice to the basic accounting topics found in most textbooks, and an expansion of data processing coverage would compound the problem. Studying data processing implications of every major accounting topic or procedure is out of the question. An attempt to fully integrate first-year accounting and data processing would result in a course in which students do not learn enough about either subject.

Methodology In First-Year Accounting

An enthusiastic, well-prepared teacher, who knows how important accounting is to the world, can teach an accounting course so that it is exciting and challenging. A teacher brings life to new topics by relating those topics to the students' experiences. Examples from the teacher's own business background can be cited to highlight a procedure illustrated in the day's lesson. News stories about corporate profits, a new factory in town, or changes in the ownership of a local firm, should be brought into class discussions so that students will understand the immediacy and vitality of the accounting course.

If students are to maintain interest, they must experience success early and often. Teachers can contribute to the confidence that comes with success by making assignments that are manageable, by giving differentiated assignments, and by granting bonus credit for extra work done. They can facilitate learning by asking easier questions of those students who, discouraged by repeated failure, desperately need to hear the teacher say, "very good!" More demanding questions should be directed to abler students who need and want questions and problems that present a challenge.

A friendly but businesslike atmosphere should prevail in the classroom. In such an atmosphere, good work habits can be emphasized. A premium should be placed on efficiency, regular attendance, punctuality, neatness and accuracy in work done, and on good working relationships with others. Communications skills, an important requirement in office work, should also be emphasized. Clerical chores, such as checking attendance and distributing supplies, should be routinized so that time is not wasted. Students should be urged to carry over into their labwork this practice of routinizing clerical detail—wherever it is found. For example, they should be taught to develop a pattern in journalizing and posting as an aid to the economical production of work that is complete and accurate.

The traditional or group method

The traditional method, by which the class is taught as a group, follows these steps:

1. Material studied earlier and which is related to the new topic is reviewed briefly.
2. New material is presented, with the teacher illustrating its application by working a demonstration problem on the chalkboard or on a transparency. Students participate by asking questions, making necessary computations, and answering questions.
3. An application problem, emphasizing the new concept or procedure, is assigned. Students work the problem at their desks, and the teacher assists students individually as needed. Several days of supervised work periods may follow, with additional problems assigned. During these periods, self-reliance is emphasized; but student-to-student discussions can be profitable on occasion. They help the student who is being assisted and also clarify procedures for the student giving instruction. The teacher should preview difficult transactions with students and conduct class discussions as needed.

All students should be encouraged to take part in class discussion, and the teacher should make an effort to call on every student every day. By asking questions, the teacher is able to detect misunderstandings and weaknesses and undertake remedial measures at once. Students should be encouraged to ask questions and to develop an attitude of inquiry.

It is sometimes advisable to divide the class into two or three groups, with each working at a group pace. Under this arrangement, the teacher will introduce new material to each group when that group is ready. Those students with a high aptitude for accounting are thus not held back in their progress, and students who require more time to master material will not feel defeated by the need to learn new material before they are ready.

In class discussions, it is important that the teacher explain *why* a certain procedure is followed. Usually this can be done by relating a transaction, for example, to the fundamental accounting equation and analyzing the effect of the transaction on the equation. Memorizing is not necessary when students understand *why* something is done. The student who *understands* can meet new situations or new transactions and deal with them effectively. Students who have memorized do not know what to do when faced with a new transaction, because they have not had an opportunity to memorize an answer.

As students develop an understanding of the need for financial reports and their functions, and as they get experience in preparing them, they should be encouraged *not* to refer repeatedly to models in the textbooks. The logic of the standard forms should become obvious to them, and they should follow logic. Compliance to tested forms and reports is expected in the accounting profession. It is important that reports be uniform in appearance as an aid to interpretation, comparison, trend identification, and other uses by readers. Thus, creativity in the preparation of statements is not to be encouraged in accounting.

The individualized method

Some teachers are of the opinion that individualized instruction is the only economical way to teach accounting. There are many variations of this method, and one successful procedure is described in this section.

A typical individualized approach follows these steps:

1. Students are taught by the traditional method until they have completed the entire cycle in its simplest form, after which an achievement test is administered.
2. Those students who score above a predetermined level on the test are given the option of continuing with the traditional (group) method of instruction or entering the individualized instruction program.
3. Students who continue with group instruction will review the cycle and can then be taught succeeding topics in the traditional manner. They may, upon demonstrating a high level of achievement at a later time, transfer to the individualized method. Students who fail to make

adequate progress under the individualized plan will return to group instruction after a fair tral.

4. Upon entering the individualized plan, the student receives a Learning Activity Package, containing:
   a. An explanation of the individualized plan and general instructions
   b. The rationale for the unit to be studied
   c. A list of performance objectives for the unit
   d. Several paragraphs of reading material prepared by the teacher to supplement other reading assignments
   e. A reading assignment from the textbook and/or other sources
   f. A list of helpful supplementary materials that may be obtained from the teacher, the library, or the learning resources center
   g. A list of exercises and problems to be completed and checked against the model solutions that are available at a specified place in the classroom
   h. A self-check test with answers attached.
5. When students have completed the unit, have resolved any problems by conferring with the teacher, and have made a satisfactory score on the self-check test, they apply for a proficiency test over the unit.
6. If a student meets the pre-determined standard on the proficiency test, he or she will be given the next Learning Activity Packet and will follow the prescribed procedure.
7. Those students who do not meet the standard of proficiency tests are given additional assignments and special help from the teacher, after which they must pass an alternate test before moving on to the next unit.
8. When students have completed all LAPS, they are given enrichment experiences, excused from class, or permitted to enroll for another course—depending on school policy.

Communication between teacher and student is an important part of the individualized instruction method. The teacher must provide encouragement, instruct, check on progress, and evaluate the student's work. The individualized plan allows a student to progress at a much faster rate than the traditional method, but it also provides a way for the student to fall behind if proper interaction between the student and the teacher does not take place.

The same standards of accuracy, neatness, efficiency, and conformity to format should be stressed under both methods.

Teaching aids and devices

There are many visual, audiovisual, and imaginative teaching aids, materials, and techniques available to the accounting teacher. Selected aids and techniques are discussed in this section.

Sound filmstrips. Filmstrips usually emphasize procedures in accounting and are especially helpful for introducing or summarizing a topic. After use in class, they should be placed in the library or learning center for repeated viewings by students who need additional explanation of a topic. These materials are of special value to students who were absent when the subject matter of a filmstrip was presented and discussed in class.

Motion picture films. Films relating to the subject of accounting are usually motivational and/or guidance-oriented. The teacher should preview each film before use and conduct a follow-up discussion after the viewing.

Bulletin boards. Bulletin boards should be attractive and changed often enough to sustain student interest. Boards may be prepared by the teacher, groups of students, or individual students. Possible displays include: examples of student work, source documents used in the community, news articles treating topics related to accounting, tax forms, motivating devices, posters, and pictures of new business machines.

Transparencies. Most teachers' manuals contain transparency masters that are correlated with textbook topics. These should be supplemented with teacher-prepared transparencies that clarify subject matter or can be used in working through problems with students. Sometimes it is helpful to project solutions to problems so that students can check their own work.

Chalkboard. Some teachers prefer to use the chalkboard rather than transparencies, especially when working a problem in front of the class. Accounting procedures are best taught by showing, not merely telling, students what procedure should be followed. When possible, boards should be permanently ruled. Colored chalk can be used to emphasize procedures or selected dollar amounts.

Field trips. Appropriate destinations for field trips include data processing installations, business machines shows, accounting departments of banks and other business houses where students will have an opportunity to see how various transactions are handled and to compare documents with those illustrated in the textbook.

Guest speakers. Former students, now employed in business, are often very effective resource persons. Among other possibilities are: local accountants, tax specialists, bankers, and data processing specialists.

Monopoly game. The class is divided into groups of four, with each group moving to a table where there is a monopoly board. Each student brings a "set of books" designed in class the previous day. Students record all transactions to which they are a party, while playing the game in the usual way. At the end of the game, each student prepares financial statements.

Crossword puzzles. A number of accounting-oriented crossword puzzles are available in the literature, but probably most effective are those prepared by teachers and students. These puzzles usually emphasize terminology.

Bingo game. Each Bingo card has squares which contain answers to questions. The teacher asks a question, and students search their cards for the answer. If a student finds the answer on his or her card, the answer is covered with a tab or a bean. When all squares-in-a-row are covered, the student calls, "Bingo!" and is declared the winner after the card is checked for accuracy. This is a useful device when conducting a review of material prior to a test.

Accounting contests. Some regional affiliates of IBEA conduct contest for high school accounting students in their areas. Each school is permitted to send one contestant. First, second, and third-place winners receive plaques or trophies and all students who took part receive certificates of particpation.

Possible Course Outline for First-Year Accounting

INTRODUCTION: All businesses, sole proprietorships, partnerships, and corporations use the same basic principles of accounting. Therefore, it is important that first-year students begin with the simple accounting cycle and proceed systematically and logically to the complex systems. Even though many businesses today use the computer to process data, the manual accounting system is the most practical way to teach and to learn the fundamental principles. The following outline of content for first-year students is based on the Balance Sheet approach.

I. Sole Proprietorship
   A. Simple Cycle for Service Business
      1. Use the balance sheet to explain assets, liabilities, net worth and to stress the "balance" concept.
      2. Relate the balance sheet to the opening entry in the journal, to debits and credit in transactions, and to the effects of increase and decrease in assets, liabilities, and capital.
      3. Teach logical reasoning from the beginning by asking these questions when journalizing transactions:
         a. What accounts are affected?
         b. What kind of accounts are they?
         c. Are they increased or decreased?
         d. Are they debited or credited?
      4. Complete the five divisions of the ledger by introducing income and expense as related to the capital account.
      5. Introduce columnar cash journals by stressing the need for efficiency, speed, and accuracy because these journals illustrate the concept of saving space and time. They also show the use of special columns for frequently used accounts and the need for a general debit and credit column for ledger accounts not often used.
      6. Give emphasis to posting procedures. Stress that routine, once established for amount, date, and posting reference, should be followed regularly and completely. It should be clearly understood which columns and numbers are posted separately and which are posted only as totals.
      7. Include in the simple accounting cycle the work at the end of a fiscal period. By using transparencies the following steps and principles may be illustrated and taught:
         a. Footing and balancing of accounts.
         b. Taking a trial balance to prove that debits equals credits in the general ledger.
         c. Completing six-column work sheet in pencil to separate accounts in the trial balance into balance sheet and income statement accounts. Remind the students that they know from previous lessons which accounts to take to the balance sheet columns. Students not only find the net income or loss in the income statement column, but they also learn why it is part of the balance sheet columns.
         d. Preparing financial reports as outlines with summaries and conclusions.
         e. Demonstrating that closing entries return general ledger accounts to the original accounts of assets, liabilities, and capital and combine income and expenses accounts into a summary account.
         f. Illustrating that, *after closing* the income and expense summary account, another trial balance is taken to prove that debit balances equal credit balances in the general ledger.

   B. Accounting Cycle for Merchandising Business
      1. Both cash and credit transactions can be recorded in a combination journal. Columnar headings are expanded to include accounts receivable, sales discount, sales, accounts payable, purchase discount, and purchases.
      2. To keep the general ledger from being too large for a work sheet, separate subsidiary ledgers are kept for customers and creditors.
      3. Only controlling accounts are maintained

in the general ledger. Accounts Receivable replaces separate customers in the asset division and Accounts Payable summarizes the creditors in the liability section.

4. When teaching posting to the subsidiary ledgers, the basic principles of increase and decrease of assets and liabilities can be emphasized again.
5. Proof of the accuracy of posting separate accounts to the subsidiary ledgers and totals to the general ledger is obtained with schedules prepared before a trial balance is taken.
6. Proof of cash involves a bank reconciliation and an entry for service charges and any other unrecorded transaction reported on the bank statement. The cash balance at the beginning of the fiscal period is always added to the total cash debit column before the total of the cash credit is subtracted.
7. An eight-column work sheet with adjustments for merchandise and supplies inventories, and the present value of prepaid insurance must be completed to report an accurate net income or loss.
8. A capital statement is needed to show the net increase or decrease in capital caused by withdrawals by the proprietor against any income or losses. This report precedes the balance sheet because only the present capital is reported in the capital section.
9. The eight-column work sheet provides information for both the adjusting and the closing entries. The adjusting entries are taken from the adjustments column; closing entries are made from information in the income statement columns. The accounts to be closed are income, cost of merchandise sold, and expenses, as well as income and expense summary and drawing. Because closed accounts have zero balances, every account in the credit column of the income statement is debited, and the income and expense summary is credited. Likewise, every debited account is credited, and the income and expense summary is debited. The third closing entry uses the net income or net loss to close the income and expenses summary account into capital. Finally, the drawing account is closed into capital.
10. After these four entries are posted, the ledger is closed, and only assets, liabilities, and present capital remain for the post-closing trial balance.
11. Payroll records involve entries for withholdings from employees for income tax, social security, and voluntary deductions as well as the employer's liabilities for payroll deductions. Current report forms should be secured from either a local business or from an IRS office. Often the subject of payroll can be understood more clearly if the class visits a local retail business office.

C. Special Journal System in Merchandising Business

1. Special journals used include purchases, cash payments, four-column general journal, sales, and cash receipts. Students need to understand why special journals are used and to be able to select the correct journal for each transaction.
2. This system may be adapted to both small and large businesses. Accounting may be performed by only one person in a small store, or it may be divided among many employees in a large business.
3. The system uses petty cash vouchers and cash register tapes and proofs as basis for summary records and entries in cash receipts and cash payment journals.

D. Special Transactions in Merchandising Business

1. Exact and accurate evaluations of assets and liabilities for taxation purposes make special business transactions necessary.
2. Accounts to be brought up-to-date are sales (taxes payable), accounts receivable (bad debts), fixed assets (depreciation), inventories and notes, accrued income, and accrued expenses.
3. Adjusting entries for these accounts provide correct book values of assets and sets up expense accounts which affect net income or net loss. Reversing entries are introduced at this time.

II. Partnerships

A. A partnership is a business in which two or more persons combine their assets and their abilities and become joint owners. The owners have unlimited liability for debts of the business.

B. A legal contract called Articles of Partnership is an agreement among the partners.

C. There is little difference between the accounting work for a partnership and that for a sole proprietorship.

D. The major difference between the accounting for a sole proprietorship and a partnership is in the capital accounts and the drawing accounts.

E. Changes are necessary in the following entries:
   1. To record opening entries when only cash is invested or when a proprietorship is converted to a partnership.
   2. To pay partners' salaries as expenses.
   3. To report distribution of net income or net loss and the equity of each partner.
   4. To close the income and expense summary and drawing account.

F. First year students should be taught these similarities and major differences between a sole proprietorship and a partnership.

III. Corporations

A. A business that has a legal right to act as one person but that may be owned by many persons is called a corporation.

B. Charters must be received from federal or state governments after Articles of Incorporation are certified. Shares are sold at either par or no-par value to stockholders providing capital stock.

C. Owners have limited liability for debts of the corporation.

D. The opening entry debits assets, credits liabilities, and an account titled Capital Stock for the amounts invested.

E. The worksheet gives additional accounts that relate to the capital account (Capital Stock and Retained Earnings), and to the federal income tax (Federal Income Tax Payable and Federal Income Tax).

F. One additional adjustment is needed for a corporation to record income taxes.

G. As in a partnership there are few differences in the financial statements of a corporation and those of a sole proprietorship. Exceptions are the calculations for federal income tax on the income statement and the capital section on the balance sheet.

H. The balance of the income and expense summary account is closed into the retained earnings account.

I. A post-closing trial balance is prepared for a corporation, as for a sole proprietorship or a partnership.

J. The declaring, paying, and recording of dividends is an important aspect of corporate accounting. There may be the need for reversing entries at the beginning of a fiscal period.

K. This introduction to corporate accounting is recommended for first-year students.

IV. Data Processing

A. Purpose of this study for first-year accounting students is to provide information rather than to build skill.

B. Introduce:
   1. Manual and mechanical systems of data processing.
   2. Flow chart symbols.
   3. Speed-up methods such as write-it once principle, the pegboard, and calculators.
   4. Punched card and the unit record system.
   5. Computers to an accounting setting.

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DATA PROCESSING PROGRAMS

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DATA PROCESSING PROGRAMS

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DATA PROCESSING CAREER OBJECTIVE

Introduction

Data processing is a relatively new member of the business education curricula. Its problems and successes are often visible because of the impact of the computer on nearly every segment of society. As a result, the gap between the need as expressed by business and the product as supplied by education has been relatively small.

Data processing education was practically nonexistent during the 1950's. Industry's need for people trained in punched card operations was met primarily through manufacturer-supplied short courses and on-the-job training. During this period businesses began to see the practical application of the computer for meeting their data processing needs. The IBM 650 computer, introduced in 1954, was the first computer designed to handle mass data files of both alphabetical and numerical data. The result was a surge of computer utilization by business and a corresponding shortage of people trained in all phases of computer utilization.

A few experimental educational programs were developed in the late 1950's, and a scattering of credit and non-credit courses appeared in college business and mathematics departments. The primary sources of trained people, however, were manufacturer training programs. Local business and industry often provided computer facilities, materials, and instructors for these early programs. One of the advantages of this beginning was the cooperation fostered between schools and industry. This spirit of mutual benefit has been a continuing characteristic of computer education program development in all levels of education.

During the 1960's, the computer industry was hard at work attempting to refine the quality and capabilities of the computer. An offshoot of this effort was the development of a new breed of computer called the minis. This decade saw an even greater need for trained personnel to program and to operate these new machines.

The National Defense Education Act provided funds for the rental or purchase of computers and other data processing equipment for use in education. In addition, a number of federally funded institutes were conducted in an attempt to fill the need for teachers of data processing. Universities, for the most part, devoted their efforts to the use of the computer as a tool in their mathematics and science departments. Only a small number of business departments became involved. It was not until the 1970's that courses in programming languages and related work were recognized as legitimate offerings at the university level. Efforts to gain acceptance of studies about computers and their utilization led to the creation of new departments separate from both mathematics and business.

The 1970's saw the continued upgrading and refinement of the "maxi" computer and the development of increased capabilities of the minis, with the minis taking the lead in the area of interactive capabilities. Technology had progressed to the point where another offspring surfaced to challenge the maxis and minis for a place in the world of computers.

The micro computer or "computer on a chip" has made the general public more aware of the computer. It has shown the computer's potential for providing leisure and hobby activities as well as its ability to be used to solve a myriad of problems. Concurrent with the changes in computer technology, but not at the same rate, has been the development of a support industry—software. The development of software (programs) to run these machines has been growing at an increasing rate.

Technology in the 80's will continue to find new and more efficient ways of making computers with greater capabilities and at a lower cost to the user. The implication for education is that more and more people will have access to these machines and will demand that appropriate education be provided in order for them to make effective use of their computers.

The person who considers the computer field as a career will find greater emphasis being placed on courses which stress application. Less time will be devoted to training in the procedural program generator type languages, such as COBOL, PL/1 and others. It is the non-procedural program generator type languages that will provide access to the computer to the greatest number of people. This is not to imply that the teaching of procedural languages should be abandoned. In fact, there should be a continuing and growing demand for these skills. The growth, however, will be at a slower rate than in other areas.

The four-year colleges and universities may well find that programming language courses now included among their course offerings will be in less demand as the skill development aspect of computer education moves downward in the educational structure. Students enrolling in these classes may already possess the skills that such courses are intended to develop. Now may be the time for the four-year institutions to start planning for provision of a more comprehensive study of new applications and uses of computers in business.

The secondary schools should assume that they will be called upon to provide much of the foundation knowledge and skills necessary for success in college. In addition, they will be expected to provide sufficient background for those who do not go on, but who must possess computer literacy in order to live in a growing computerized society.

Because of lowering hardware costs, it will not be uncommon to see whole classrooms equipped with micro computers or terminals for use in a variety of classes. Even in the 70's, students in the upper elementary grades are using programmable electronic calculation with skill and ease.

During the 1960's, data processing educational programs and courses were geared to providing the education and training needed for the technology of the 50's. The 70's generally zeroed in on the needs of the 60's. Computer education in the 80's must not perpetuate the ten-to-fifteen-year lag of the past. Teachers must strive to narrow the gap. They must be responsive to technological change and provide students with the education and training that will enable them to function more effectively in a fast-paced society.

Data Processing at the High School Level

Concepts for All Business Students

Business education in the 80's is faced with a new challenge—acquainting students with the nature of the computer and its role in society. This means computer and data processing concepts should be emphasized in all business classes.

With the cost of the computer no more than that of a stereo system, business education departments should consider gaining access to a computer for classroom use. More stress should be placed on using some type of computing device and less on punched card machines such as keypunches and card sorters.

Even when acquisition of such equipment is not feasible, all students enrolled in business courses should be introduced to some basic data processing concepts in high school. Many good texts, some suitable for use in high schools, are now available to help the teacher in presenting this type of informaton. Whatever text is used, the following basic data processing concepts should be taught.

1. What is data? Data is a collection of facts; by themselves they mean little. Besides the digital data, reference should be made to data in analog form.

2. What is meant by the data processing cycle? Explain the various steps of the cycle: data origination, editing, conversion to machine-sensible form, input processing, output, and storage.

3. Methods of data processing. No one method is used to process data today. Organizations use a variety of means to produce information. Time should be spent studying current, as well as former, methods of producing information.

4. Characteristics of a computer system. There are many varieties of computers but all have the same general design structures. Emphasis should be placed on the many ways data can be entered into a system as well as outputted. Various types of storage devices should be studied with comparisons made as to speed, capacity, and accessibility.

5. Input/Output media and devices used in business today. Examples of a variety of Input/Output media can easily be gathered to demonstrate OCR technology, microfiche, and computer printouts of various types. New developments in voice input and output as well as handwritten, fingerprint, and voiceprint technologies should be part of this unit.

6. Vocations in the computer/data processing industry. To inform the student of career opportunities within the computer/data processing professions, one should classify jobs as to data entry, computer operations, systems and applications programming, systems analysis, and data processing management.

Many publications provide current salary ranges and job descriptions for the various positions within each category. These help to demonstrate the wide range of openings for students with varying degrees of post-high school educational plans.

7. Major ways businesses use computers. Businesses first used computers for automating accounting applications. Some of the major types of accounting applications that should be discussed are:

1. Sales
2. Purchases
3. Payroll
4. Inventory Control
5. Accounts Receivable
6. Accounts Payable
7. Financial Reporting and Analysis

Besides the accounting applications listed above, time should be spent discussing some of the other uses businesses make of computers such as:

1. Management Information Systems (MIS)
2. Management Science
3. Scheduling
4. Engineering
5. Modeling

8. How many professions are using the computer outside the business world? To place the computer in perspective, time should be spent studying *how* various agencies and occupational areas utilize the computer to process data. Some examples include the medical profession, law enforcement, air traffic control, the banking industry, and agriculture. Current periodicals provide a wealth of information for this type of unit.

9. Capabilities and limitations of computers. To help eliminate the myth and mystery of the computer given through movies and television, a unit should be included that explains what a computer can and cannot do as well as some projections about future developments.

10. The computer in the home. Time should also be spent discussing the impact of the computer in the home. Here, two approaches need to be explained: one, the use of remote computers that a person has access to through a home terminal; the other, the use of a "personal" computer that is located within the home itself.

This discussion should cover the wide range of uses of a "home" computer. It should include, but not be limited to, the operation of a "home-based" business, organization of one's own financial and tax information, computer assisted instruction (CAI), and recreational computing through the use of games, etc.

11. **How does one use a computer?** This unit would include a discussion of the steps the operator must go through in order to have a computer process facts. Included would be the concepts of flow charting, coding, program development, using a programming language, and testing output for accuracy. It is at this point that some type of hands-on experience would be most beneficial.

12. **Vocabulary.** One of the most helpful services that a business education department of the 80's could provide for its students would be acquainting them with data processing terminology. A list of standard terms that all business students should be familiar with would provide a starting point.

This list should be developed by the Business Education Department and incorporated into each business course. In the shorthand class, for example, these terms could be included in spelling lists and dictation material. In the typing classroom, letters and reports to be typed could include these terms. The accounting, introduction to business, business management, and office procedures courses are natural areas for discussion of data processing terminology.

Summary

Because most business courses deal with processing data, the Business Education Department of the 80's should try to provide all students with some information concerning one of the most important means of processing that data—the computer. If projections prove to be accurate, the computer will be to businesses of the 80's and beyond what the adding machine and typewriter have been to date—an essential, basic business tool.

Issues and Problems, Questions and Concerns About the Secondary School Data Processing Curriculum

The following questions and answers are designed to help teachers and administrators plan for educating students in a computerized world.

1. **Is data processing equipment necessary to teach data processing and computer concepts?** While equipment may not be necessary to merely teach concepts, it is desirable that equipment be a part of the curriculum. Providing students with "hands-on" experience is a must for any skill-building activity. The added motivation that results from having a computer in the classroom must also be considered.

2. **What data processing/computer equipment is recommended for the classroom?** Two types of equipment have been a part of many data processing courses in the past years—punched card and computer. As the demand by business for punched card equipment declines, so should instruction on this kind of equipment.

Fortunately, the cost of computer equipment is now decreasing. The size, degree of flexibility, and the amount of storage are only a few of the features to be considered when selecting a computer for the classroom. A more detailed list of considerations can be found in the DATA PROCESSING EDUCATION FOR SCHOOLS WITH EQUIPMENT section.

Because cost is less a problem than ever before, Business Education Departments now have the opportunity to provide students with "hands-on" exposure to the computer world.

3. **Will students be hired for data processing jobs directly from high school?** Depending upon the depth of the high school program and other variables, high school students may be hired at low-level positions in the field at a greater rate than in the past. Businesses, however, will probably continue to seek community college students for most of the data processing jobs involving programming.

4. **Will high school data processing programs overlap or duplicate the community college data processing programs?** The high school student who receives a background in computer concepts will have a better foundation for post-high school courses. Where advanced high school programs exist, articulation between the local community college and the high school is especially important.

However, because the community colleges offer courses on larger, more complex systems than the high school student is apt to use, there should be no significant problems of overlap.

5. **Are high school teachers prepared to teach data processing concepts?** Business teachers have taught the processing of data in most courses for many years and have the basic expertise to deal with the computer.

Because computers are a rather new development compared to other business machines, most business teachers today have little or no practical experience in using them. This void in the preparation of business teachers should be lessened as teacher training programs place greater emphasis on this area of instruction in the 80's. Teachers need to take advantage of the many courses and workshops now available.

Computer operation is far less complicated than in the past, and educators can learn the skills of programming and computer operations with comparative ease. Programming languages such as BASIC allow one to communicate with a computer after only a few minutes of study.

6. **What are the considerations for textbook selection?** One of the most significant characteristics of the computer industry has been rapid and constant equipment change. A textbook that deals with data processing and computer topics must, first of all, be of recent publication. Workbook and practice sets that are correlated with the text are needed, especially in schools without equipment.

Lastly, a well-illustrated text that deals with subject matter at the students' level is essential.

7. What role should local businesses play in establishing data processing programs and curricula? Taking a tour of a business utilizing computers is one of the best ways for students to see the data processing cycle in operation. In addition, local firms could supply speakers, as well as samples of computer inputs and outputs and storage devices such as disks and tapes.

One of the most helpful roles a local business can play is that of consultant. When equipment is to be purchased or curriculum developed, data processing professionals from the local community can offer valuable suggestions and recommendations.

8. What programming languages should be taught at the secondary level? Several hundred programming languages exist today. In business, five or six of these are commonly used. How then should a school decide which to use? In large measure, the language to be used depends upon the size and make of the computer. The smaller "personal" or "home" computers generally operate using the BASIC language.

If the goal is to introduce students to programming logic and techniques, this language would be highly desirable for both teacher and student. If available, instruction in RPG or COBOL could be provided, although these languages (commonly taught at the community college level) require a larger, more expensive computer facility.

Data Processing for Schools Without Equipment

Objectives

For schools that offer an Introduction to Data Processing class without the aid of equipment, instruction should help the student to:

1. Understand the role of computer data processing today.
2. Understand the various methods developed in the past to process data.
3. Understand the functions of the major pieces of unit record equipment used in the past to process data.
4. Realize how various types of software and hardware are combined to constitute a computer system.
5. Explore the role of computers in today's society as a potential threat to privacy and other personal rights.
6. Identify the many career paths in the data processing field and the training and education needed for them.
7. Gain a working understanding of basic computer/data processing terminology and concepts.
8. Realize the many capabilities and limitations of computers.
9. Understand how computers operate and store information.
10. Understand the role of flow charting techniques and development of algorithms.
11. Understand the differences among the most common programming languages used in business today.
12. Know what must be considered when one purchases a computer and software.

Since it is impossible to identify specific competencies needed for local employment, we are providing general objectives to be used as guidelines for the development of measurable objectives in consultation with the local advisory committees.

Grade Placement, Prerequisites, and Course Length

Teaching data processing concepts without the aid of equipment would seem to dictate that the course length be no more than one semester. Although students should be familiarized with computer concepts throughout their high school career in all business classes, the placement of juniors and seniors in such a course is recommended.

No prerequisites need be required, but courses in bookkeeping, accounting, office practice, typewriting, etc., would give the students a broader base with which to start learning data processing concepts.

Major Topics

In addition to the "Computer/Data Processing Concepts for All Business Students" listed earlier, the following topics should be included in the introductory course:

1. The punched card (80 and 96 columns) including how cards are punched, why they are punched, codes used, format of the card, types of fields, how data is checked for accuracy, etc.
2. Types of computer systems (business vs. scientific, digital and analog, mini computers and micro computers, time sharing systems, random and sequential access systems, etc.)
3. How computers work (parts of a computer system, how data is stored internally, binary arithmetic, etc.)
4. How data is stored (on cards, magnetic tapes, magnetic disks)
5. Types of Input/Output devices (OCR, MICR, optical characters, barcode, CRT displays, graphics, plotting, voice, etc.)
6. Occupations within the industry
7. Steps in problem-solving on a computer
8. What a programming language is
9. Advantages and disadvantages of computers
10. History of data processing machines and methods
11. History of computer development

Teaching Methods and Materials

Textbook. A well-illustrated text is very important. At the teacher's option, supplemental study guides, workbooks, and practice sets may prove to be very beneficial in demonstrating key data processing concepts.

Research. Time should be set aside for students to read current periodicals about the use of computers in a variety of fields.

Audio Visual. Many films and filmstrips are available, covering all aspects of computers and data processing ranging from how computers work to societal issues and vocations.

Classroom Activities. To demonstrate how various systems work, a visit to the school's office or administration center to see how report card, attendance, and related data is processed can help illustrate many concepts.

Of course, the normal teaching methods and techniques used in any classroom can be used in the data processing classroom. Overhead visuals are a must when a school is teaching a data processing course without equipment. Panel discussions and oral reports give students an opportunity to take an active role in the classroom. A special area of the bulletin board reserved for newspaper and magazine articles about data processing and computers encourages students to be on the lookout for course-related items. This activity helps keep the course content current and provides an opportunity for students to apply what they have learned.

Field Trips. This is a virtual must for any data processing class. Tours of businesses or governmental agencies with a wide variety of equipment are suggested. If possible, students could be given an opportunity to prepare a simple program at a local community college or some other available facility to get the "feel" of the computer.

Computer Demonstrations. The teacher should check with computer vendors to arrange for a demonstration or loan of a small computer for classroom use. While the policies of firms vary , this type of effort can prove to be very beneficial.

Equipment Brochures. The teacher should maintain a file of brochures and pictures of data processing equipment. This would make an excellent class project. Students could write to the various data processing companies requesting information and brochures about their equipment and then use the materials they receive to make posters, bulletin board displays, and/or write reports.

Summary

The key to a successful course is the teacher. He or she must assume the responsibility for gathering information about data processing course content and methodology from colleagues, professional organizations, course work, and current literature on the subject.

Data Processing Education for Schools with Equipment

During the past decade, many schools acquired various types of data processing equipment to use in their instructional program. With the continued decline in computer cost, many more schools should undoubtedly follow this trend into the 80's. Because a curriculum involving this type of equipment is new to most schools, it is difficult to list a definite array of techniques, materials, or methods one should follow during the next ten years. The only sure thing will be that the way computers will be used in the classroom will change during the 80's.

Some of the wide-ranging thoughts, suggestions, and recommendations that follow may aid in the planning for this new business subject.

Recommendations for Schools with Equipment

Schools can gain access to a computer system through one of several means. Some of the more common are:

1. Purchase of equipment
2. Lease of equipment
3. Use of a remote computer via telephone communication
4. Shared use of the computing facility with school's administration
5. Shared use of the computing facilities of the companies with representatives on the advisory committee

Each of the possibilities (as well as others) carries some major advantages and disadvantages. A great deal of time should be devoted to studying the options and determining objectives and goals for the use of the computer. Teachers should solicit advice from current users and computer professionals both in business and in education.

No matter which of the above methods is used, the following guidelines should be considered before a decision is made:

1. Because the life span of today's equipment is about seven years, plans should be made for service throughout that period and for replacement when necessary.
2. Few computer firms are actively involved in computer education at the high school level. While this may not be too significant for the teacher with a strong background in the field, it is essential to the newer teachers of the subject that a company be chosen that has curriculum materials as well as prepared programming to supplement the computer.
3. Most business teachers are well aware of the problems of equipment breakdown. The computer is no exception. A decision about service contracts on the equipment is a very important step. Typically, repair of a computer system is much more expensive than repairs of other office equipment.

4. The trend into the 80's is away from the punched card as an input media. The merits of a punched card system should then be considered carefully prior to purchase.
5. The scheduling of student time at a computer is a significant problem in the classroom. Thought should be given to various ways of minimizing this problem.

Objectives for Schools with Data Processing Equipment

The objectives for schools with data processing equipment will include those objectives previously listed for schools without equipment. The degree of emphasis given to the keypunch machine will depend upon the scope of the local data processing program. Some possible keypunch objectives are to learn how to:

—Punch numeric and alpha data from printed and handwritten source documents.

—Plan and use a program card to initiate shifting from numeric to alpha modes, skipping, and automatic duplication of numeric and alpha data.

—Punch numeric data by touch.

—Punch numeric and alpha data rapidly and accurately.

—Visually check data for keying errors.

If a separate verifier is available, or if a combination keypunch/verifier is used, students should be taught the basics of verification of punched data. Also, if a computer system can be used, it is advisable that punched cards be printed and totals be generated in order to check the accuracy of the keypunching. For schools with the proper facilities, a separate keypunch course could be offered.

Applications for Schools with Computer Facilities

The presence of a computer greatly expands the possibilities for teaching data processing concepts. Following are some major applications a Business Education Department can consider when a computer is available:

—The computer can be used to teach the fundamentals of computer logic and programming.

—Students in courses such as accounting or introduction to business may use the computer and a teacher-prepared program to process classroom assignments. Preparing financial statements via computer is an example.

—Students in advanced typing and office courses can use the machine with prepared programs to gain understanding of data entry concepts as well as word processing.

—For schools with computers that have a disk storage based computer, computer operations can be taught.

Many approaches can be taken to teaching computer programming. Because of the wide range of student aptitude, it might be desirable to divide the class into groups for their introduction to programming. Students with minimal math background might be placed in a separate class from those with good math skills. The goal should be, however, to provide all business students with an opportunity to study computer programming at some level.

Programming assignments should be wide ranging in order to demonstrate the many ways computers can be used. Some examples are:

—Using the computer to generate several totals and averages from a file of data.

—Using the logic capability of the computer; one assignment would be to have the computer search a file for particular records and print out an appropriate report.

—Using the computer to print bar graphs representing summary totals.

—Using programs that require input from the user throughout the execution of a program.

—Making programming assignments that demonstrate how a computer can be used to prepare paychecks, report cards, etc. These assignments, of course, must be made with the aptitude of the student in mind.

—Making assignments to program games of various types in order to acquaint students with simulations.

—Giving assignments that allow the student to understand how a computer can be useful at home. Examples range from checkbook maintenance to keeping a file of family birthdates and upcoming events. Other "personal" applications could include a household inventory, tabulation of income tax expenditures, and a personal budget.

Computer Programming Textbook Selection

Due to the many types of computer systems and variations in the same language used on these systems, the selection of a programming language textbook is particularly difficult. Following are some recommendations:

—No programming text should be selected until after a computer system is purchased. A text can then be sought which will be as compatible with the computer system as possible.

—A text with ample computer listings and executions is advantageous.

—A text which provides flow charts of programs is desirable in order to demonstrate the logic of the programs illustrated.

—Study guides, chapter questions, and programming problems with solutions are also desirable.

—Depending upon the type of student, care should be taken to select a text that provides programming problems and illustrations that are not unnecessarily complex. A math- or science-oriented text for a business data processing class, for example, would not be appropriate.

—To supplement any text, manuals or other materials from the computer manufacturer will often be

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needed to explain unique features of a programming language that are not covered in a standard programming textbook.

Methods and Strategies in Teaching Computer Programming

Because most students enter a computer-oriented class with many misconceptions about the nature of computers and programming, it is important that course work be well planned. The following suggestions will aid in this planning:

1. Programming problems assigned to students should not be complex or unfamiliar. It is important for the student to readily understand the nature of the problem to be solved on a computer. One should not assume, for instance, that all students are familiar with accounting concepts. An assignment dealing with school-related activities, such as grade reporting, is more easily comprehended by the student than is an accounting problem involving debits and credits.
2. Assigning programs to a team of students, rather than to each student, offers several advantages. Students feel more comfortable with a partner, especially at the beginning of the course when so many new concepts are introduced.
3. During the first part of a course, give students a program to modify or expand. Not knowing what a valid program looks like, the student is given an opportunity to use a working, error-free program from the beginning. As the student gains experience, this approach can give way to the assignment of problems to be solved.
4. As a programming class progresses, students should be assigned some type of individual (or team) programming project. Examples range from a program to tabulate football scores to a chemistry problem. The goal of this exercise is to provide students with the experience of applying their programming skills to a problem of their own choosing.
5. Programming assignments can be made to provide for individual differences. For example, an assignment can be divided into three parts. The minimal requirement would constitute a C grade; completion of a set of additional options for a B grade; and completion of another set for an A grade.
6. Each program should demonstrate a new feature, programming technique, or statement. Assigning a previous problem to be solved in a new way by virtue of a new statement or technique can illustrate the advantages or merits of a new concept.
7. At the start of a course, students have many fears and misconceptions about the computer. Early programming assignments should be accompanied with clear, detailed instructions as to how to use the computer and what to expect as output from it. An early positive experience will provide many benefits throughout the course.
8. A variety of programs should be assigned to demonstrate the capabilities and flexibility of the computer. Some examples include:
   a. A program to produce a computer bar graph of data
   b. A short CAI (Computer Assisted Instruction) problem
   c. A program to generate a particular design
   d. A program to randomly generate an arithmetic work sheet of addition problems.
   e. A computer game
   f. Programs to demonstrate business uses of computers (payroll, inventory, etc.)
   g. One or more "personal" or "home" computer programs (to maintain a checkbook, a list of birthdates, a household inventory, addresses, etc.)
   h. A computer simulation and/or game
   i. A survey or pool program. (This activity would require students to gather data from classmates, to code and then process the results via a program of their own. Through this activity, students gain an insight into the many steps of solving a problem on a computer.)
9. It is to both the teacher's and student's advantage to resist the urge to code a program on the computer. Stress should always be placed on planning an accurate program. Developing an algorithm should constitute the majority of time spent in solving a problem on the computer. Far less time should be spent on coding the program into the computer. This approach will also reduce the amount of time needed at the computer to find and debug programming errors.
10. There is mixed opinion about the use of flow charting in computer programming classes. Each teacher should decide how best to use flow charting to teach computer programming logic. However, all programming students should be taught how to read and interpret a flow charted solution of a problem.

Summary

Many different approaches can be used in the teaching of programming at the high school level. The advantage of the computer is its ability to fit the needs of a wide range of student abilities. The teacher should consider using a variety of approaches to best illustrate programming techniques.

Data Processing at the Community College Level

Objectives

Many objectives can be formulated to describe data processing education in the community college in the 80's. All of them, however, support the ultimate goal of producing a graduate who can function productively and successfully in an ever-changing technological environment, both in the local job market and in the employment market at large. In order to accomplish this, the Community College data processing educational program should:

1. Produce graduates who will possess the technical skills for success as computer programmers.
2. Produce graduates with a basic background in systems analysis which will enable them to work effectively with systems analysts.
3. Produce graduates with a broad general understanding of business and how the computer can be applied to a variety of business situations.
4. Produce graduates with the necessary communication skills and related talents who can work in an organization responsibly, effectively, and productively.
5. Provide a foundation of knowledge and skills to serve as a base for continued learning.
6. Enable graduates to do a competent job and have potential for growth both on the job and in their personal lives.
7. Provide all students in the college with the opportunity to gain enough knowledge of the computer and its uses so that they will have an understanding of the computer and its impact on their lives, and, for many, the opportunity to gain sufficient skills to use the computer as a tool.

Selected Issues

An infinite number of issues could have been selected for consideration. What seem to be worthy issues today might be totally irrelevant in the next decade.

Staffing and Staff Upgrading

The availability of qualified data processing instructors has always been a problem. With the increased interest in computer education, the problem appears to be one of staggering proportions.

The academic qualifications of community college data processing faculty in Illinois range from little or no formal education to a few who hold doctorates. One of the major ingredients for success in teaching appears to be the amount of practical experience of the teacher.

The teacher of the 80's will very frequently come from colleges and universities offering programs in computer science, data processing, information systems, etc. The same budgetary and other constraints which have always been a problem will continue, and the community college will not be able to attract many of these graduates. The competition with industry is too great. As a result, community colleges will have to provide for continual training and professional development of existing faculty while also attempting to recruit capable new teachers from industry and graduate schools. If providing computer literacy is a realistic goal, staffing could become a critical problem.

Community colleges should investigate the feasibility of faculty exchange programs with industry where teachers gain experience on the job while their classes are taught by their exchange counterparts from industry. Frequently a community college instructor can fill temporary jobs made available during summer vacations. Active involvement in activities outside the classroom that provide practical experience should be encouraged. Finally, every effort should be made to provide financial resources for faculty to participate in various professional activities and educational seminars.

Enrollment Pressures

This issue is viewed from two sides. The first is the pressure that is generated when an institution attempts to provide computer education for all students. The number of sections of courses dealing with computers might be comparable to the number required for basic English. Many students enrolling in the community colleges will have gained varying levels of computer knowledge in the secondary schools. For those students with little or no exposure, foundation course work must be made available. In addition, there must be a flexibility in the offerings whereby students may be placed in programs at a level consistent with their previous knowledge and training.

A second aspect of enrollment pressure is the concern that the technical program not be allowed to overproduce. There is the temptation to accept all interested students into programs regardless of the potential jobs available. Each college must keep abreast of the employment needs and opportunities in the area it serves. Advisory committees, employment surveys, and other means should be used to keep abreast of the employment market.

Unit Record Instruction

During the 80's, emphasis on instruction dealing with unit record can or should be eliminated. The old argument that learning unit record concepts and techniques had transfer value in learning to program and use computers is no longer valid. All that this approach has done is to perpetuate outmoded technological approaches to problem solving. The keypunch and the sorter probably will not disappear. However, the extent of their utilization will be somewhat diminished as new data entry methods and devices make their appearance.

Programming Languages

The choice of the correct language to be taught will continue to be a problem. Recent national surveys indicate that the predominant national problem-oriented procedural language is COBOL. It is unlikely that any new languages will replace COBOL in the next ten years; however, there are certain to be challenges. The selection of a language must be based on the needs of the employers in the area.

The question of the appropriateness of a Report Program Generator (RPG) language to serve as the major language has been very controversial. One side points out that although capability in the use of one of the non-procedural programming tools, without knowledge of a procedural language, might prepare the graduate for specialized technical employment, it could limit the potential that graduate might have for career advancement. It has been generally agreed that knowledge of only a non-procedural language would be less transportable to procedural types of computer programming, and graduates would therefore be less capable of transferring the knowledge of that simple programming medium to other languages.

On the other side of the controversy, numerous examples can be found which indicate that in the future, higher level file access systems and non-procedural languages operating within a data base management system in many instances will obviate the need for traditional programming language instruction. Both sides of the issue are valid, and the implication for the community college is that graduates, in addition to having programming language skills, will need to be knowledgeable of the applications and methods for accessing and manipulating large data files or data bases.

Another point regarding programming language instruction is that the initial exposure to programming need not be in the major language. In fact, evidence has given much support to the benefit gained from an introductory course done in a time-sharing demand environment using a simple interactive language such as BASIC. This approach has been found to be highly motivational and is relatively successful in exposing the student to general programming concepts without the need for technical detail in formatting data.

With the extensive availability and use of mini and micro computers that use BASIC as their primary language, this may well become a major language to be taught in some situations. In such situations, indepth language instruction and interactive applications should be a part of the course offerings.

New Curricula

It takes approximately six years from the time a technological innovation is developed to the time it is generally accepted and implemented. Education is anywhere from four to ten years behind in providing instruction and courses for the general public entering the field. This lag cannot be totally laid at the feet of the educator. Budgetary constraints and the time it takes to decide upon, develop, and implement courses all contribute to this lag.

Recognizing this time constraint, it is difficult to predict the nature of the programs of the 80's. In all probability, the programming curricula will not be significantly different. However, some changes will be implemented, and the hardware necessary to support these programs will be obtained gradually.

Word processing programs which may or may not incorporate the data entry function will become commonplace. This is a relatively new area but one in which new programs can be anticipated.

The number of computer operations curricula in Illinois has remained somewhat static. Only recently were any significant attempts made to define a "universal" body of knowledge which could be developed into a program. Because of the need for greater numbers of personnel with a higher level of training to work as computer operators, it appears that the development of such programs will receive significant impetus in the decade ahead.

These programs may evolve from the single lecture-lab course into fullblown programs which include general education components in addition to the technical content. Their development should be based primarily on the need of the employers served by the college and the equipment available for hands-on training.

Mini and micro computers will have a significant impact on the community college data processing instructional programs. Large numbers of small computers are being sold to small businesses that do not have employees trained in programming and operations. The very nature of the small business with a limited staff will mean that the person responsible for the system will need a broader background than the person in a large organization. It will be up to the community colleges to provide the necessary education program to meet this need. Although the specifics will vary, such programs should include courses and/or training in the following areas: data entry, computer operations, programming, systems design, management, and oral and written communications.

Although the "personal" computer will probably not dictate a need for a formal program, the community college must be prepared to provide some appropriate instruction. This instruction may run from a single BASIC language course to a whole series of courses. The series might include topics and/or short courses which provide coverage of elementary computer concepts, languages, systems design, criteria for selection, "personal" computers, and many others.

Careers

Careers in the 80's will probably cluster around the same four career paths that are common today—data entry, operations, programming, and systems.

Data entry will no longer be concerned just with providing training on the keypunch. Because of projected increases in the number of computers, there will be a corresponding increase in the number of people capable of operating a variety of data entry keyboard devices. It may be desirable to develop certificate programs which promote a higher level of skill. The granting of the certificate may well be based on the student's ability to demonstrate a production level skill of 7,000 to 10,000 keystrokes per hour. In order to meet these rates, entry into the program should be based on the demonstrated typing skill of 50 wpm or more. Students should be exposed to a variety of data entry devices, and, wherever possible, be given an opportunity to operate the equipment. Because students may find employment in a wide variety of situations, a course or courses should be provided which will enable them to see how their skills fit into the overall data processing department.

Computer operations will continue to mature and become a final career objective rather than a stepping stone into programming. As the computers of the 80's continue to become more complex and sophisticated, a corresponding demand for more highly qualified operators will emerge. Operators will need to possess a greater depth of knowledge of data processing in general and the ability to understand and grasp the technical aspects of operations. The following is a sampling of the skills and knowledge required of a computer operator:

1. An understanding of programming and its impact on operations.
2. An understanding of hardware functions and operations.
3. The ability to, when given a clearly defined problem and the necessary materials, equipment and software:
    a. Plan activities in order to meet a predetermined deadline.
    b. Modify data in order to test programmed error procedures.
    c. Establish control totals.
    d. Maintain control forms.
    e. Check computer printouts to determine validity of output.
    f. Complete various data entry and documentation forms.
    g. Key-enter and verify data.
    h. Document procedures according to predefined standards.
    i. Determine job control language requirements for each procedure.
    j. Understand and respond to messages generated by the system including recovery and restart procedures as well as program generated procedures.

Although this in no way describes the scope of the computer operator's activities, it is presented to point out some of the skill and knowledge currently required for job success. Community colleges should, with the assistance of advisory committees, investigate the local situation, and, where there is a need, develop a program based on the level of technology found.

Programming

Some prognosticators have suggested that the languages of the future will be so simple from the user's point of view that people will be their own programmers. An individual will merely have to orally or in writing describe the problem; the computer will produce the desired results. The day may come when this is a reality. However, it may not happen in the 80's.

Programs will continue to be written in COBOL, FORTRAN, RPG, PL/1, etc., and language instruction will still be required. The 80's will see an increased emphasis on non-procedural languages that possess the flexibility and power of many procedural languages. These non-procedural languages will be used to a large extent on small computers.

Community colleges will need to expand offerings to provide courses relating to the small computer environment, with greater emphasis being placed on applications. Programmers will need a more extensive background in accounting, management skills, operations, and communications in order to adapt to the small computer environment.

The use of interactive languages on small computers will expand. Hybrid versions of BASIC will be commonplace. These languages will have file processing capabilities comparable to or even better than those found in the procedural languages. The need for people with interactive programming language capabilities and the number of jobs will increase significantly in the next decade. Community colleges may find it desirable or even necessary to create courses or programs to meet this market.

Programming has often been called an art because each programmer created a program that only he/she could understand. Since 1964, an effort has been under way which has attempted to change programming from an "art" to a "science." This effort has resulted in a methodology known as "Structured Programming" which is intended to solve many of the problems that have existed since the development of the stored program concept. This method provides an organized approach to programming which will result in increased programmer productivity, improved program reliability, and programs that are easy to modify and maintain. During the 80's, structured programming and structured design concepts and techniques will be established as a viable method to more effectively perfect the programmer's skills. These techniques will be refined into an accepted standard for the industry. Such a prediction has significant implications for community college programming curricula. Failure to move in this direction could cause a successful program to fall behind in meeting the needs of the employment marketplace and work to the detriment of the students.

Conclusion

Data processing education in the community college is entering a decade of dramatic and far-reaching change. Each year a reassessment of programs and courses should be made to assure that current offerings are meeting current needs. If the prognostications are correct, no school will be able to rest comfortably on past successes.

Some expected changes are:

1. Computer education will be provided for all students through courses designed to satisfy general education curricular needs. The introductory data processing courses typically have related more closely to the "business" point of view. New courses must address the needs and application of computers to areas not previously covered.
2. There will be a continued growth in the use of procedural languages. In addition, a significant emphasis will be found in the non-procedural languages which allow the specialist in a particular discipline to use the computer to generate programs that meet his/her needs without an in-depth understanding of languages.
3. There will be an increased emphasis on applications design. Techniques will be developed which will enable analysts to design applications following a pattern for development. Community colleges will provide foundation training for such skills. The systems design and development course will come into its own with a real purpose. Structured design along with structured programming is a pioneer effort in this direction.
4. Study of and instruction in Distributed Data Processing Concepts and Techniques will be commonplace. Courses will cover such topics as teleprocessing, on-line inquiry and retrieval, data management, and data security.

The Preparation of Data Processing Teachers for the 1980's

The purpose of this section is to present information regarding what should be done at the university level to prepare data processing teachers.

At the ti[illegible]f this writing, the state of Illinois requires 5 hou[illegible] data processing courses for state certification for those teachers teaching data processing in grades 9 through 12. If, however, one is employed to teach data processing in a vocational reimbursable program at the eleventh and twelfth grades, the state of Illinois certification requires the 5 hours of data processing courses plus 2,000 hours of work experience in data processing. The authors are suggesting what they feel *should* be included in the preparation of data processing teachers.

General education courses should be available for prospective data processing teachers in the areas of communication (both oral and written), the humanities, economics, the computational areas of math and statistics, psychology, the sociology/anthropology areas, and other important elective areas.

Broad Business Background

It is recommended that any business teacher should have a broad business background. This is particularly important for the data processing teacher, since data processing cuts across *all* areas of business.

Specifically, it is recommended that 25 percent, or 30 hours of the 120 hours required for a degree, be used as the base of business knowledge. Although course titles change over the years and differ from university to university, the authors recommend the following ten courses for the 30 hours:

1. Elementary Accounting I
2. Elementary Accounting II
3. Business Law I
4. Introductory Data Processing (including computer programming)
5. Business Statistics
6. Principles of Management
7. Principles of Marketing
8. Principles of Finance
9. Production Management
10. Business Policy

This array of courses will provide the foundation for specialization in any area of business including data processing. The prospective data processing teacher will be able to take half of these courses at the community college (those numbered 1-5). Those numbered 6-10 are typically considered to be upper-division or university-level courses.

Professional Education Courses

Any individual aspiring to the teaching profession should have the privilege of taking professional education courses. The authors suggest that 24 semester hours be available for professional education. A portion of the 24 hours should be devoted to student teaching. No specific course suggestions are made, since each university will provide its set of courses for the preparation of teachers.

Specific Data Processing Courses

Assuming the student uses 42 hours for general education, 30 hours for broad business background courses, and 24 hours for professional education courses, then only 24 hours of professional data processing course work remain to prepare the data processing teacher. The 24 hours are in addition to the three-hour Introduction to Data Processing course which was part of the broad business background courses.

The student should pick at least 8 courses from among the following 15 courses to obtain the 24 hours in data processing:

COBOL I

The student will develop the ability to solve business problems, using standard flow charting techniques, and will learn the conventions of ANSI COBOL (Common Business Oriented Language).

COBOL II

The course is a continuation of COBOL I with emphasis on file-handling techniques.

Business FORTRAN

This course provides the student with sufficient knowledge of the FORTRAN programming language to be able to solve business data processing problems. Efficient coding techniques are developed. Program debugging techniques are developed by the proper use of program listings and flow charts.

BASIC

This course provides instruction in the BASIC (Beginner's All-Purpose Symbolic Instruction Code) language. BASIC presents a simple, easily understood means for a student to communicate with the computer via terminals. The course covers input/output, arithmetic, control, arrays, and many other BASIC language features.

RPG II

This course is designed to teach the students how to use RPG II to program computers. Case problems used will include a variety of business reports commonly produced by the computer.

Business Systems Design and Development

The student will analyze information flows, design systems, develop systems specifications, and consider equipment selection and implementation.

Data Processing Applications

Applications covered in this course include order writing, billing, sales analysis, accounts payable, inventory control, payroll, personnel records, general ledger accounting, plant and equipment accounting, and accounts receivable. Other applications may also be considered.

Computer Operations

The student will have the opportunity to learn the techniques of operating the computer, mounting tapes, loading disk packs, operating printers, and working with other computer equipment.

Data Processing Management

This course provides an understanding of the special problems associated with the management of the data processing functions in a business organization.

Directed Projects in Data Processing

Students are given a project to adapt to the computer. The work involves program preparation, debugging, and formal documentation.

Mini/Micro Computers

This course is designed to help students study computerized solutions to common business problems such as payroll, accounts receivable, etc., using a small computer.

Business Simulations

The student will become familiar with the techniques for simulating realistic business situations.

Computer Applications for Decision Making

Students use the computer to solve quantitative business problems. Techniques could include linear programming, PERT, etc.

Advanced Computing

This course presents advanced topics such as data base administration, telecommunications, and/or other selected topics of a current nature.

Internship in Data Processing

This course provides on-the-job work experience in a data processing environment on a part-time or full-time basis.

Special programs should be available at the university level for those transfer students with a data processing background and who hope to be data processing teachers. Community College transfers sometimes are exceptionally well-qualified as a result of specific data processing courses completed at the community college. The typical community college transfer with an Associate of Arts degree in Data Processing may have all the data processing courses needed by a prospective teacher. Thus, they may need more business courses and little in the data processing area.

Teachers of data processing should have a broad data processing background. If teachers go back to school during the summer terms, or if they enroll in evening classes during the school year, they might want to consider the courses being suggested in this section. It should be noted that many of the suggested courses are available in most community colleges as well as some universities.

Practical Experiences

One of the problem areas for teachers of data processing is the lack of practical experience in a business data processing environment. In the 1980's the problem may be worsened by the increased variety of computers being used. The experience problem will also be greater in that there will be a wider range of computer applications. Nearly all large firms now have or rent or subcontract a computer. With the advent of the mini and micro computers in the late 1970's, it is obvious that in the 1980's all firms will be able to easily afford a computer which has both disk and tape devices. As early as 1978 it was possible to purchase a small computer with disk and tape storage for less than $2,000. Small computers with cassette tape storage could be purchased for less than $1,000. As prices of computers continue to decline, a computer will be within the price range of every middle-income family in the nation. They may become as readily available as the television set in the 1960's. Thus, to help the data processing teacher do a better job in a dynamic area, four suggestions are made:

1. **A Practicum or Methods Course** should be available to help prepare a college senior aspiring to teach data processing. This course should incorporate teaching techniques and materials appropriate for the newest hardware and software on the market. The teacher of this course will need to be not only an exemplary teacher, but he/she must also be *current* in the rapidly changing data processing field.
2. Universities should provide a data processing *internship* for prospective data processing teachers. By being active in the Data Processing Management Association and similar organizations, appropriate internship stations can be found. Flexibility of timing and types of experiences will be important. The overriding consideration should be to get the prospective teacher into an actual data processing work en-

vironment for at least a semester and preferably for a year.

3. **Student teaching in data processing** will help the prospective teacher. The area of business education has been known for producing excellent teachers. One of the main reasons for this successful program has been the student teaching experience. Data processing can benefit from this experience. A student teacher in data processing will experience the job of teaching a student to flow chart a problem, write a program, test and debug a program, and he/she will also benefit from the experiences of the expert teacher who supervises the student teacher.
4. All data processing teachers should have the opportunity for *in-service training*. Perhaps this in-service training is needed more in data processing than in any other area of business education. The rapid changes in hardware make it nearly impossible to keep up with the changes. The expansion in the use of mini/micro computers in the late 1970's is evidence of a great need for continual in-service training for all data processing teachers. Advancements in software also dictate a need for in-service training. Business and industry spend millions annually on training their data processing staff. Schools should certainly try to keep their teachers current in the 1980's with well-planned and well-funded in-service training programs. High schools, community colleges, and universities should all give serious consideration to the funding of seminars, workshops, short courses, conferences, and even vendor courses in an attempt to keep their data processing teachers at the cutting edge of technology.

Professionalism of Data Processing Teachers

The active, alert data processing teacher can determine the organizations to which he/she should belong in order to enhance his/her teaching abilities. The data processing teacher should seek membership in data processing organizations such as the Data Processing Management Association, the Association for Computer Machinery, and various computer user's groups.

Data processing teachers should also be encouraged to pursue professional certification. At the time of this writing, teachers should at least consider sitting for the Certificate in Data Processing (CDP). The CDP exam is a one-day, five-part exam. The five parts of the exam are:

1. Data Processing Equipment
2. Computer Programming and Software
3. Principles of Management
4. Quantitative Methods
5. System Analysis and Design

Teachers will find that a number of Data Processing Management Association Chapters and community colleges have excellent CDP Review courses. Teachers should be encouraged to review and sit for the exam. This activity will bolster the in-service training recommended earlier in this chapter.

Data processing teachers should also consider other professional designations such as the Certificate in Computer Programming. It is likely that other types of professional certification will eventually become available for data processing teachers.

Summary

In summary, the data processing teacher in the 1980's should have a good general education, a broad business background, professional education courses, and specific data processing courses. The preparation of data processing teachers for the 1980's should include a practicum or methods course, some type of internship, and student teaching, followed by an in-service training program. The data processing teacher for the 1980's is encouraged to extend his/her professionalism through memberships in data processing organizations and by pursuing professional certification.

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CLERICAL, SECRETARIAL, WORD PROCESSING, AND ADMINISTRATIVE OFFICE CAREERS

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CLERICAL, SECRETARIAL, WORD PROCESSING, AND ADMINISTRATIVE OFFICE CAREERS

OVERALL GOALS

ISSUES AND PROBLEMS

INTRODUCTIONS TO COMPETENCIES REQUIRED FOR OFFICE CAREERS
  Business Core
  Office Careers Core

SPECIFIC COMPETENCIES FOR OFFICE CAREERS

METHODS AND STRATEGIES FOR TEACHING OFFICE CAREERS COURSES
  Secretarial Procedures
  Shorthand
  Typewriting

RELEVANT RESEARCH

BIBLIOGRAPHY

CLERICAL, SECRETARIAL, WORD PROCESSING, AND ADMINISTRATIVE OFFICE CAREERS

Overall Goals

A student in the Office Careers Program should be able to:

1. Acquire an awareness and understanding of the opportunities available for entry employment in an office career.
2. Select a specific office career and become acquainted with the competencies needed for that career.
3. Develop competencies related to his/her specific career choice to the degree that success and advancement can be experienced on the job.
4. Become aware of the duties and responsibilities of business employees.
5. Perform the duties involved in processing information and handling work flow through the office.
6. Develop attitudes, work habits, personality traits, and skills required for successful employment in the office.
7. Acquire skill in the areas of human relations, decision making, and in the setting of priorities.
8. Develop the expertise and "know-how" for getting a job.
9. Recognize the importance of continuous learning while on the job and that a career in the office involves a continuous learning process.
10. Prepare for the duties of adult citizenship in the community and in the nation.

These overall goals for clerical, secretarial, word processing, and administrative office careers may be converted to measurable objectives for individual courses. The use of local advisory committees would be very valuable in determining the various competencies needed for employment in these occupational areas. These competencies could be the basis upon which a competency based instructional system is developed.

Issues and Problems in Teaching for Office Careers

Teachers daily face issues and/or problems brought about by the variety of students they have in classes. Each year as school begins they must analyze the make-up of the student population in their classes and adjust their teaching methods so that each student can reach the desired goals and objectives.

Today rapidly advancing office technology forces business educators to look not only at the student population for changes, but also to examine office trends and be aware of technological changes. Teachers need to constantly update course content, goals, and objectives in order to prepare employable men and women.

Issues in specific business education subject areas have been clearly defined in the National Business Education Association's 1976 Yearbook: *Business Education Yesterday, Today, and Tomorrow.* In addition to these concerns there are other issues and problems that appear to be important for the 1980's. The issues are not placed in order of priority, but each is pertinent to all levels of instruction—secondary schools, vocational schools, community colleges, and universities.

1. New professional fields are being developed as paperwork increases and electronic equipment plays an increasingly greater role in the office. Students must be aware of opportunities in the fields of information management—records management, forms management, reports management, micrographics, reprographics, data entry, and word processing. New office occupations will undoubtedly develop in the next decade. The business educator must read professional literature, attend seminars and conferences, and maintain communication with local business leaders to be aware of what is happening. National organizations representing each profession—Association of Records Managers and Administrators; National Micrographics Association; International Word Processing Association; Word Processing Society, Inc.—will provide materials for teachers.

2. Recruitment of males into business education courses will become increasingly imperative. Women are moving into occupations that were traditionally handled by males and vice versa. Since, traditionally, office career courses have drawn mostly female students, this will need to change in order to meet the employment needs. The secretarial field offers great upward mobility for ambitious male and female students.

3. Terminology and equipment will continue to change rapidly because of the constant advancement in new technology. Educators need to keep in contact with vendors, visit offices, attend professional meetings, read professional publications (such as *The Office, Information and Records Management, Word Processing World,* and *Administrative Management*), and use the new business terms in the classroom to help students develop a good business vocabulary.

4. A variety of new titles will be used for office jobs. Career paths will be much more defined. This is especially true in the word processing area. Teachers must train students for vertical mobility. Students need skills that will make them promotable, not just employable.

5. Teachers of shorthand now have several systems from which to choose. Research studies compare

symbol, machine, and alphabetic systems and are available to instructors for help in deciding what to offer. Teachers should consider offering more than one system or changing systems occasionally if dropout rates are high. Shorthand skill is necessary to obtain many good jobs and to advance on the job. Whether or not the skill is used heavily on the job, it is a screening device that many firms use to assure good transcription ability; and it is a valuable personal-use work tool.

6. Mainstreaming special education students may present teaching problems. Materials are available for teaching the blind and handicapped to type. Word processing supervisors are finding the blind make very good correspondence secretaries; however, there is not much material available on teaching the blind to transcribe. More in-service training in this area will need to be provided by school districts and professional organizations. This is an area that needs development (See Section on Mainstreaming).

7. More and more is being heard about the poor grammar used by young people in our society. Business teachers have a responsibility to produce graduates who can dictate and transcribe using correct grammar and punctuation, as well as accurate spelling. Teachers must be well prepared to teach these skills in order to strengthen the educational background of the students. This emphasis must take place in the business classes in addition to the English classes which concentrate on composition and literature.

8. Business teachers must keep in constant contact with the local business community in order to educate for the employment needs of that community. Business teachers at all levels should make it a part of their jobs to become well acquainted with business leaders in the community and their office staffs and procedures. This is a big order, but the teacher can gain many benefits from this kind of contact—equipment, speakers, job placement, audiovisual aids, work experience, and classroom illustrations.

9. Work experience for business educators will be increasingly important. Advances in office technology are occurring so rapidly that textbooks cannot keep current. Teachers must rely on periodicals and the real office to obtain up-to-date information. Actual experience with new office procedures and machines is worth more to a teacher than words. Obtaining summer work experience can be a problem. It is incumbent upon the teacher to convince businesspeople that employment of the instructor on a part-time basis will benefit both the community and the firm. The arrangement adds to the value of the school program by enabling the teacher to make coursework more practical, realistic, and up-to-date. At the same time, it brings to the firm the services of a well-trained, competent part-time employee and the probability of better-prepared employees in the future.

10. Teachers must keep up with current research on teaching methods. It is possible for a teacher to have 20 years of experience or one year of experience 20 times. There are many methods of teaching different subjects. If one method doesn't produce satisfactory results for a class, another method should be tried. Graduate students and Delta Pi Epsilon chapters continually conduct research and publish results for the benefit of teachers. The 1976 NBEA Yearbook and professional periodicals (such as, *Business Education World, Journal of Business Education, Delta Pi Epsilon Journal, Balance Sheet, Business Education Forum,* etc.) should be consulted for many issues concerning methods of teaching.

11. Teachers at both the secondary and post-secondary levels must acquaint guidance counselors with employment opportunities in the business world and the advances of office technology. If the counselors are to recommend business programs, they must be informed. The responsibility of the teacher is to keep the counselor aware of all changes in business courses and the local job market for office occupations. The teacher and counselor can and should work as a team.

12. Articulation within and between schools has been and will remain a problem unless business teachers make an effort to open communication lines. The comprehensive high school and area vocational center teachers can inform local post-secondary schools of their course offerings, textbooks, standards, and vice versa. Students can be better prepared and properly placed, especially in skill classes, if each school is aware of the standards used to determine grades.

13. Vocational schools and community colleges, especially are faced with the issue of specialized programs. Should there be a general secretarial curriculum or several specialized ones—legal, medical, bilingual, technical, educational? Each geographic area has a different job market, and the school must study the local needs. Advisory committees can be very effective in this particular endeavor.

14. High school business teachers are faced with the problem of having to teach part of a vocational or career education course. The content of this orientation course is the issue. The emphasis should be on an overview of occupations in the business area through the use of films, field trips, speakers, pamphlets, etc., with no emphasis on skill development. Round table discussions with other business teachers in the area or at professional meetings will generate many ideas. This is a course that may change in content each term.

15. With the increasing use of electronic typewriters and typewriters with correcting features, the need for stressing accuracy in typing classes is being questioned. Should students be permitted to strike over as they would with these new machines? Should

speed be stressed above all? On the other hand, data entry using minicomputers, CRT equipment, etc., calls for great accuracy. Many teachers favor maintaining the present emphasis on proofreading and the continued use of speed and accuracy drills. They assert that only in this way will students develop into typists who can be successful in any typing endeavor.

16. The 1980's will bring a decrease in the number of high school graduates. In order to meet employment needs, educational institutions will have to recruit and train nontraditional students. This will be done through adult education programs in the secondary and post-secondary schools. Post-secondary schools may find programs will have to be modified in order to *re*train people for the current job market.

17. Metrics units should be added to typing, shorthand, and office procedures classes. Students need to know that metrics will affect office occupations. They need to know the possible changes in paper size, envelope size, and stationery folding procedures. Typists must learn the metrics vocabulary and how to type the abbreviations. Shorthand students should learn the outlines for metrics terms.

There are courses in basic metrics, programmed learning books and booklets, articles, etc., that a teacher can use to learn the system. Development of a teaching unit with visuals such as transparencies, flash cards, posters, and metric measuring instruments can be very beneficial to the students and provide a change of routine in skills classes. *Think Metrics in Business Education* (IBEA, Fall, 1976) gives suggestions for teaching metrics in specific business courses.

18. The secretarial teacher must decide whether to use the traditional approach, simulation, or model office in the classroom. Authors in professional periodicals and research studies have written widely on this issue, and the material must be evaluated according to the availability of equipment and resources. There are commercially prepared materials available, or teachers can use their own and their students' creativity in designing materials for classroom use.

19. Teachers at all levels should acquaint students with the professional examinations and certification programs offered in various fields. The extent of the emphasis and introduction will vary with the educational level. High schools will merely acquaint students with the fact that examinations are offered and that this should be one of the student's future goals; whereas colleges and business schools will stress the preparation for the examination by going into the aspects of the various sections covered, etc. Examinations covering office related skills include:

Certified Professional Secretary

This two-day examination sponsored and administered by the National Secretaries Association (International) covers sections on Behavioral Science in Business, Economics and Management, Accounting, Office Procedures and Administration, Business Law, and a Secretarial Skills and Decision-Making In-Basket. The CPS rating offers a significant, measurable, and attainable goal for career-oriented secretaries who want to be identified as exceptional. It provides the assurance which comes from having met an accepted professional standard.

Details as to requirements, cost, bibliography and other information may be obtained by writing to: The Institute for Certifying Secretaries, National Secretaries Association, International, 2440 Pershing Road, Suite G10, Crown Center, Kansas City, Missouri 64108.

Professional Legal Secretary

This two-day examination sponsored and administered by the National Association of Legal Secretaries (International) covers sections on Written Communication Skill and Knowledge; Human Relations and Ethics; Legal Secretarial Procedures; Legal Secretarial Accounting; Legal Terminology, Techniques, and Procedures; Exercise of Judgment; and Legal Secretarial Skills. The PLS rating is a recognized standard by which a legal secretary is known to (1) have had at least five years' experience as a legal secretary, (2) have passed a rigorous examination, and (3) understand the meaning of the term "privileged communication." The PLS is qualified to do any type of work performed in a large or small law office.

Details as to requirements, cost, bibliography, and other information may be obtained by writing to: National Association of Legal Secretaries, 3005 East Skelly Drive, Suite 120, Tulsa, Oklahoma 74105.

Shorthand Reporter Certification Programs

Certified shorthand reporter. A certification program is operated by the State of Illinois to license machine or manual shorthand reporters. The examination covers competency and ability to understand the English language, including reading, spelling, and knowledge of day-to-day vocabulary as well as medical, legal, and technical vocabulary without the use of a dictionary. A dictation examination ranges from 150 words a minute to 190 words a minute.

For information regarding fees, times and places of examinations, requirements, etc., write to: Department of Registration and Education, State of Illinois, 628 East Adams Street, Springfield, Illinois 62786.

Registered professional reporter. This program, administered through the National Shorthand Reporters Association, consists of a two-part exam. The written knowledge portion covers areas of knowledge needed to perform the duties of the shorthand reporter, including court rules and procedures for marking of exhibits, docket system, and legal directories.

The Certificate of Proficiency portion of the exam is a three-part dictation test with speeds ranging from 180 to 225 words per minute.

The Merit-Level of the Registered Professional Reporter requires successful completion of a three-part dictation test ranging from 200 to 260 words per minute.

Every three years each Registered Professional Reporter must accumulate 30 continuing education points to maintain certification.

For information, write to: National Shorthand Reporters Association, 118 Park Street, S.E., Vienna, Virginia 22180.

Introduction to Competencies Required for Office Careers

Business Core

All students interested in *office* careers should pursue the development of competencies in these areas: accounting, economics, basic business, date processing, business law.

Office Careers Core

All students interested in an *office* career need competencies in the following:

- Job-Seeking:
  - Testing
  - Interview
  - Where to search
  - Resume/data sheet
  - Letter of application
  - Attire
  - Legal aspects of hiring—employee rights
- Personal Traits and Attitudes:
  - Positive outlook
  - Self-confidence
  - Promptness and punctuality
  - Attendance
  - Management of time
  - Initiative
  - Accepting responsibility
  - Decision-making
  - Confidentiality
  - Working under pressure
  - Handling dissatisfied callers personally or via telephone
  - Attention to self-development
  - Human relations traits
    - tact
    - cooperativeness
    - sense of humor
    - accepting criticism
    - self-control
    - adapting to change
  - Assertiveness
  - Positive customer relation
  - Ability to analyze interactions
  - Handling stressful situations
  - Handling non-traditional sex roles
  - Understanding office politics
  - Appropriate attire and its impact from various company viewpoints
  - Business Math:
    - Four basic computation skills
    - Roman numeration
    - Fractions, percentages and decimals
    - Interest
    - Discounts
    - Basic metrics
    - Checkbook reconciliation
  - Use of Information and Reference Materials:
    - Dictionary (spelling and word division)
    - Secretarial handbooks
    - Zip Code directory
    - Almanac
    - Atlas
    - Professional publications
    - Company handbooks or procedures manuals
    - Yellow pages of the telephone directory
- English Skills:
  - Proper punctuation
  - Knowledge and application of spelling rules
  - Correct grammar usage
  - Knowledge of business vocabulary
- Proofreading:
  - Reading for "sense"
  - Use of proofreader's marks
  - Ability to find errors in typing, grammar, spelling, word usage
- Penmanship:
  - Neatness
  - Readable form
- Reading and Comprehension Skills:
  - Speed
  - Understanding of what is read
  - Use of business literature—how to read, how to find
    - a. trade journals
    - b. daily papers
    - c. other publications of business conditions and trends

The competencies needed at a mastery level for specific office careers in clerical, secretarial, word processing, and administrative office management are given on the following pages according to the level at which they should be offered. These competencies can be combined in a number of ways under various course titles to meet the individual needs of schools and students at the high school, area vocational school, community college, and senior college levels as well as to meet the employment requirements of a local area. For information on vocational education course sequences at the high school level, refer to "Suggested Guidelines for the Planning of Sequential Programs at the Secondary Level in Business, Marketing and Management Occupations" published by the Illinois State Board of Education, Department of Adult, Vocational and Technical Education, 100 North First Street, Springfield, Illinois 62777.

Additional information on teaching word processing appears in the section, "Business Communications and Word Processing."

SPECIFIC COMPETENCIES FOR OFFICE CAREERS

++	Skill or knowledge of skill needed for supervisory management function
+	Skill needed for operating level (performing the skill)
+-	Knowledge needed for minimal understanding

1 = Secondary level
2 = Years 1-2 of college
3 = Years 3-4 of college

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
Receptionist Techniques	1	2	3	1	2	3	1	2	3	1	2	3
Receive office visitors/hosting duties	+	+		+	+						+	
Give business information to visitors	+-	+		+	+						+	
Screen visitors who wish to see your employer/supervisor	+	+		+	+						+	
Make appropriate introductions	+	+		+	+						+	
Assist visitors to proper office area	+	+		+	+						+	
Take and deliver business messages	+	+		+	+						+	
Organize guided tours for visitors	+-	+		+	+						+	++
Maintain log of visitors	+	+		+	+							
Maintain reception area	+	+		+	+							
Arranging Appointments, Meetings, and Conferences												
Schedule business appointments	+-	+		+	+						+	
Keep calendar marked with appointments for employer/supervisor	+	+		+	+						+	
Prepare day's schedule of appointments	+	+		+	+						+	
Cancel and/or re-schedule business appointments	+-	+		+	+						+	
Schedule meetings and conferences	+-	+		+	+						+	
Make preparations for meetings and conferences (room reservations, etc.)	+-	+		+	+						+	++
Prepare agenda for meetings	+	+		+	+						+	++
Conduct conferences and symposiums	+-	+-		+-	+						+-	++
Assist in plans for entertaining, receptions, dinner, etc	+-	+		+	+						+	++
Select and/or invite guest speakers for meetings and conferences		+-			+-						+	++
Follow up on written notices of meetings by telephone or letter	+	+		+	+						+	++
Telecommunications												
Answer the telephone	+	+		+	+						+	
Place local and long-distance telephone calls	+	+		+	+						+	
Transfer or refer telephone calls to another department	+	+		+	+						+	
Screen employer's/supervisor's calls	+	+		+	+						+	
Send and/or receive telegrams, mailgrams, and/or cablegrams	+	+		+	+						+	
Know standard time zones	+	+		+	+							
Maintain record of long-distance calls	+-	+		+	+						++	
Operate telephone communication systems:												
Intercom system	+-	+		+	+						++	
Paging system	+-	+		+	+						++	
Switchboard (PBX, Centrex)	+-	+		+	+						++	

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
	1	2	3	1	2	3	1	2	3	1	2	3
Operate telephone communication systems:												
Teletypewriter (TWX)	+-	+		+-	+						++	
Public address system	+-	+		+-	+						++	
Typewriting												
Operate office typewriters:												
Non-movable carriage model	+	+		+	+		+	+			+	
Dual-pitch non-movable carriage model	+	+		+	+		+	+			+	
Self-correcting model	+-	+		+	+		+	+			+	
Movable carriage electric model	+	+		+	+						+	
Executive proportional spacing model	+-	+		+-	+						+	
Text-editing typewriter (memory, magnetic card, magnetic tape, cassette, visual display)	+	+		+	+			+	++		+	
Type business documents:												
Business letters	+	+		+	+		+	+			+	
Interoffice and intraoffice memoranda	+	+		+	+		+	+			+	
Minutes or reports of meetings	+	+		+	+		+	+			+	
Resolutions	+-	+		+	+		+	+			+	
Cards: Post cards, index cards, file cards, address cards, etc.)	+	+		+	+		+	+			+	
Labels: File folder labels, mailing labels, etc.	+	+		+	+		+	+			+	
Financial and tabulated reports	+	+		+	+		+	+			+	
Manuscripts	+	+		+	+		+	+			+	
Outlines	+	+		+	+		+	+			+	
Agendas for meetings	+	+		+	+		+	+			+	
Itineraries	+-	+		+	+		+	+			++	
Pre-printed business forms: Checks, purchase requisitions, purchase orders, invoices, vouchers, etc.	+	+		+	+		+	+			+	
Legal documents	+-	+-		+-	+		+	+			++	
Medical documents	+-	+-		+-	+		+	+			+-	
Type copy justified (all lines ending at the right margin)	+	+		+	+		+	+			+	
Make corrections by:												
Erasing with typing eraser	+	+		+	+		+	+			+	
Using correction fluid	+	+		+	+		+	+			+	
Correction tape on typewriter	+	+		+	+		+	+			+	
Using correction paper	+	+		+	+		+	+			+	
Squeezing and spreading	+	+		+	+		+	+				
Making Travel Arrangements												
Make travel reservations (hotel, transportation, etc.)	+-	+		+	+						++	
Make arrangements for company guests and/or visitors (hotel, entertainment, transportation, etc.)	+-	+		+-	+						++	
Prepare itineraries or schedules	+-	+		+-	+						++	
Prepare travel vouchers	+-	+		+-	+						++	
Obtain information and papers for foreign travel for employer	+-	+		+-	+						++	
Use travel information sources, i.e., transportation schedules, *Airline Guide, Redbook,* hotel/motel guides, travel agencies	+	+		+	+							

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
	1	2	3	1	2	3	1	2	3	1	2	3
Mailing and Shipping												
Handling incoming mail:												
Pick up mail	+	+		+	+						++	
Operate an automatic letter opener	+-	+		+-	+						++	
Open and/or read incoming mail	+-	+		+	+						+	
Stamp incoming mail as to date and time	+-	+		+	+						++	
Sort incoming mail for routing	+	+		+	+						++	
Maintain incoming mail register	+-	+		+	+						++	
Distribute incoming mail	+	+		+	+						++	
Receive, time-stamp, and route messages	+-	+		+	+						++	
Handling outgoing mail:												
Fold and insert letters and enclosures in mailing envelopes	+	+		+	+						+	
Address letters and packages	+	+		+	+						+	
Sign employer's mail (employer's signature)	+-			+-	+						+	
Stamp and seal envelopes (manually)	+	+		+	+						+	
Forward mail	+	+		+	+						+	
Send insured, registered, or certified mail	+-	+		+-	+						+	
Use a postage scale to weigh items	+	+		+	+						++	
Purchase postage	+-	+		+	+						+	
Compose, check, and distribute mailing lists	+-	+		+	+						+	
Calculate postal rates	+	+		+	+						++	
Stuff, bundle, sort, and/or label outgoing bulk mail	+-	+		+-							+	
Use U.S. Postal Service manuals for postage rates and mail classifications	+	+		+	+						++	
Make arrangements for freight express, UPS, private mail, etc.	+	+		+	+						+	
Trace mail	+-	+		+-	+						+	
Use franking-permit privileges (right to send free mail)	+-	+		+-	+						+	
Maintain outgoing mail register	+-	+		+	+						+	
Prepare shipping instructions	+-	+		+	+						+	
Maintain current routing guide and/or distribution lists	+-	+		+	+						+	
Operate mailing equipment:												
Postage meter	+-	+		+-	+						+	
Mail sealer	+-	+		+-	+						+	
Keep a postage meter record	+-	+		+-	+						+	
Financial Records												
Performing accounting functions:												
Record transactions in basic accounting records	+	+		+	+				+		++	
Prepare financial statements	+	+		+	+				+		++	
Prepare the payroll	+-	+		+-	+						++	++
Record physical inventories	+-	+		+-	+				+			++
Approve requisitions for supplies	+-	+-		+-	+				++		+	++
Calculate depreciation	+-	+		+-	+				+			++
Prepare insurance records and forms	+-	+		+-	+							++
Operate the petty cash fund	+	+		+	+						+	
Prepare income and expense reports	+	+		+	+						++	

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
	1	2	3	1	2	3	1	2	3	1	2	3
Handle accounts payable	+	+		+	+							++
Handle accounts receivable	+	+		+	+							++
Keep records of securities and property owned by the business		+		+-	+							++
Keep income tax records	+-	+		+-	+							++
Prepare credit and collection instruments (notes, drafts)	+-	+		+-	+							++
Performing banking functions:												
Supervise checking and savings accounts				+-	+						+	++
Bank by mail	+-	+			+						+	++
Use banking services: Safe-deposit box rentals, transferring funds, etc.	+-	+		+-	+						+	++
Calculate interest	+	+		+	+						+	++
Calculating Machines												
Adding machines	+	+		+	+						++	
Printing calculators	+	+		+	+						++	
Electronic display calculator	+	+		+	+						++	
Electronic printing calculator	+-	+		+	+						++	
Electronic programmable calculator		+-			+-						++	
Reprographics												
Spirit duplicating:												
Prepare spirit masters	+	+		+	+						+	
Operate the spirit duplicator	+	+		+	+						+	
Mimeographing:												
Prepare mimeograph stencils (typing and artwork)	+	+		+	+						+	
Operate the mimeograph	+	+		+	+						+	
Use electronic stencil process	+-	+		+-	+							
Photocopying:												
Prepare typed copy for photocopying	+	+		+	+		+	+			+	
Operate photocopier	+	+		+	+		+	+			+	
Offset duplicating:												
Prepare offset masters, mats, or originals for metal plates	+-	+-		+-	+-		+-	+-			+-	
Operate the offset duplicator	+-	+-		+-	+-						+-	
Assemble, collate, and staple duplicated materials	+	+		+	+		+	+			+	
Establish procedures for the production of forms, reports, and publications				+-	+				++		+	++
Coordinate work with printer to achieve desired layout		+-		+-	+				++		+	++
Supervise the production of printing					+-				++		+	++
Operate reprographic equipment:												
Paper punch (automatic)	+	+		+	+						+	
Paper cutter (power)	+	+		+	+						+	
Microfilm-microfiche reader-printer	+-	+		+-	+			+-			+	
Microfilming equipment	+-	+-		+-	+			+-			+	++
Composer system		+-		+-	+-			+-			+-	
Headliner		+-		+-	+-			+-			+-	
Make decisions on most efficient and cost effective method	+	+		+	+				++			
Data Processing												
Know computer usage for routine office tasks, i.e., mailing labels, lists, etc.	+	+		+	+			+-	++			

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
	1	2	3	1	2	3	1	2	3	1	2	3
Operate data entry equipment:												
Keypunch	+	+		+	+			+-			++	
Visual display	+-	+		+-	+			+-			+	
Operating computer equipment	+-	+-		+-	+-						+-	
Programming	+-	+-		+-	+-						+-	
Dictating and Transcribing Machines												
Give dictation:												
In person	+-	+		+-	+				++		+	++
With dictating machine	+-	+		+-	+				++		+	++
Transcribe from dictation recorded on centralized dictation system	+	+		+	+		+	+			+	
Operate dictation and transcription equipment:												
Dictating machine	+	+		+	+		+	+			+	
Transcription machine	+	+		+	+		+	+			+	
Shorthand machine	+	+		+	+						+	
Centralized dictation system	+	+		+	+		+	+			+	
Records Management												
Establish and/or maintain files	+	+		+	+			+-	++		+	
Establish and/or maintain the filing system:												
Alphabetic system	+	+		+	+			+-	+-		+	
Numeric system	+	+		+	+			+-	+-		+	
Geographic system	+	+		+	+			+-	+-		+	
Subject system	+	+		+	+			+-	+-		+	
Process, sort, and file business papers according to the system	+	+		+	+						+	
Handle classified or confidential files	+	+		+	+		+	+	+		+	
Retrieve needed information from files	+	+		+	+						+	
Merge and/or revise files	+-	+		+-	+				++		+	
Establish and/or maintain cross-reference listing	+	+		+	+				++		+	
Establish charge-out procedures for files	+-	+		+-	+						+	
Develop procedures for disposition of records:												
Transfer records from active to inactive files	+-	+-		+-	+				++		++	++
Dispose of unneeded documents and/or records	+-	+-		+-	+				++		++	++
Supervise the maintenance of files:												
Within a records center		+-			+-						+-	++
Within one department		+			+				++		+	++
For the entire company		+-			+-						+-	++
Conduct annual review of records		+-			+-				+-		+-	++
Communication												
Carry out written and oral instructions given by employer	+	+		+	+		+	+			+	
Use effective oral communications to give clear explanation and directions	+	+		+	+		+	+	++		+	++
Compose rough drafts of original documents	+-	+		+-	+			+	++		+	++
Compose written instructions for procedures manuals	+-	+		+-	+			+	++		+	++
Compose letters and reports	+	+		+	+						++	++

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
	1	2	3	1	2	3	1	2	3	1	2	3
Shorthand												
Take notes and dictation using any shorthand system				+	+							
Edit and read back shorthand notes				+	+							
Transcribe shorthand notes into mailable typewritten copy				+	+							
Use reference materials and procedures manual				+	+							
Office Design												
State factors contributing to the specific location of particular offices both geographically and within a building. State the psychological impact of various colors and color combinations upon one's environment					+-				+			+
Define the influence of air (temperature, humidity, and ventilation) upon productivity in the office and state optimum conditions of air in the environment					+-				+			+
Define terminology and state the effect of lighting sources and amounts established by the Office Lighting Committee of the Illuminating Engineering Society for optimal comfort and productivity of office employees					+-				+			+
Define the terminology used, measure techniques, sound reduction methods, and the effect of "noise" upon the human body					+-				+			+
State the relationship between sound and office productivity and outline methods for office design to assure sound control					+-				+			+
Become aware of psychological space requirements of human beings generally					+				+			+
State the range of space allowances for each type of work station in the office as well as space allowances for safety factors, and relate space management in the office to work flow					+-				+			+
Design a specific office to include a rationale; location; furniture, fixtures, and accessories; as well as provision for color, air, light, space management, and sound					+-				+			+
Supervising Office Personnel												
Determine employment practices used for:												
Selecting office employees		+			+				++			++
Determining salaries/benefits for office personnel		+-			+-				++			++
Develop training programs for operators and supervisors:												
Conduct training for office personnel		+-			+-				++			++
Determine eligibility of office personnel for training		+-			+-				++			++
Select individuals for office systems training		+-			+-				++			++
Evaluate the effectiveness of training programs		+-			+-				++			++
Delegate work to office personnel	+-	+		+-	+				++		+	++
Evaluate performance of office personnel	+-	+		+-	+				++		+	++
Staffing the Office												
Perform job or task analyses to determine standards and qualifications for each position in the office					+-				++			+
Write job description in a standard form for each position in the office					+-				++			+

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
	1	2	3	1	2	3	1	2	3	1	2	3
Determine sources to be used to recruit capable office employees					+-				+			+
Initiate or revise procedures and forms necessary for recruitment and hiring of office employees					+-				+			+
Outline appropriate legislation concerning employment practices and procedures					+-				+			+
Prepare plans for orientation and evaluation of probationary employees					+-				++			+
Prepare procedure to insure that all necessary payroll forms are completed and new employees are correctly entered on payroll					+-				+			+
Managing the Office												
Set objectives for office services		+			+				++			++
Develop long-term, intermediate, and short-term plans for the office	+-	+-		+-	+-				++		+	++
Organize office personnel into work groups for:												
Word processing		+-			+-				++			++
Data processing		+-			+-							++
Records management		+-			+-							++
Reprographics		+-			+-							++
Communication services		+-			+-							++
Prepare and control budgets for administration of the office		+-			+-				+			++
Purchase supplies, equipment, and office furnishings		+-		+-	+				++			++
Develop office systems and procedures		+-			+-				++			++
Sets work standards based on work measurement and cost analysis		+-			+-				++			++
Makes decisions, solves problems, and troubleshoots	+-	+		+-	+				++		+	++
Draft office manuals and handbooks	+-	+		+-	+				++		+	++
Prepare publications for the office	+-	+-		+-	+				++		+	++
Systems and Procedures Analysis												
Design an organization chart for a manufacturing firm from descriptive data assigning duties to positions within the firm									+			+
Define the terms: system, sub-system, procedures, methods, and tasks and include sub-tasks									++			+
Clarify the relationship between forms control and administrative systems by defining the objectives of forms analysis, the primary factors in determining the information to be placed on forms, and the factors to be considered in a forms control and retention program									+			+
Define the objectives of an office operation system to determine necessary methods and procedures									++			+
Analyze the flow of work in an office operation to determine steps necessary and steps which may be necessary or advantageous to two or more operations									++			+
Define work simplification principles and their application									++			+
Define work measurement and methods appropriate for office systems analysis									++			+

Specific Competencies	Clerical Program			Secretarial Program			Word Processing			Administrative Office Management		
	1	2	3	1	2	3	1	2	3	1	2	3
Justify office systems design on the basis of cost analysis ...									++			+
Define the components of a computer system and be able to project the output desired from the computer and how that output will contribute to the objectives and net product of the organization									+			++
Design a flowchart using the standard charting symbols for paper work flow by drawing a flowchart for the processing necessary for an office system									++			+
Design a departmental system by drawing a flowchart for the operation and preparing a written procedure for the department									++			++

Methods and Strategies for Teaching Office Careers Courses

All programs for office careers should include an advisory committee made up of clerical, secretarial, word processing, and/or administrative office personnel. This committee should be utilized extensively in determining which competencies are to be taught, how the competencies should be organized into instructional sequences, and the types of activities or strategies to use in instruction. Business student organization activities may also be used in any of the areas.

The following methods and strategies for teaching office careers are grouped into traditional course areas.

Secretarial Procedures

Office Practice, Secretarial Office Procedures, and Clerical Practice are all titles used to describe a course preparing students for entry-level office positions. The plans under which the course is offered vary widely. Objectives are different, and the equipment and supplies available to the students and teachers range from a few typewriters to the most modern simulated office set-ups. Teaching methodology in these programs often differs widely, also. Some procedures and techniques used to teach various levels and types of office practice are discussed in the following paragraphs.

1. The Battery Plan and the Rotation Plan are ways to deal with equipment usage. The battery plan calls for each member of the class to work on the same assignment at the same time. The rotation plan provides for individual or small group instruction on each unit. The class is divided into small groups with each group working on a different unit. When the students in one group complete the work on that particular unit, they rotate to the next unit of work. Because so many different types of learning activities are taking place at once, job instruction sheets are frequently used. A master plan should be prepared indicating the rotation periods, the students assigned to each period, and the activities they will be performing. The rotation plan calls for very careful advance planning to insure that the groups are set up according to a workable rotation plan; however, it is more economical and flexible than the battery method. The rotation plan is the most popular methodological approach to teaching "office practice."

2. The Case Study method of teaching promotes clear thinking, use of practical judgment, and making and defending decisions on the basis of available facts. Case studies use actual and/or hypothetical problems or situations that exist in business firms. After the students have had an opportunity to study and analyze background information, decisions are made on the basis of the facts available. Then, other students critique decisions made.

3. The Contract Method provides students with written descriptions of specified unit-related work to be completed in a certain time. Contracts may vary according to abilities of the students and the degree of difficulty of the problem.

4. The Buzz Group or Brainstorming Method involves the whole class of students producing creative ideas through imagination rather than through logical, reasoning processes. Each problem may be broken down into subproblems and these assigned to small groups of students to consider for solutions. This method of teaching is quite useful in attacking controversial or multi-answered questions and draws out students who do not normally participate in classroom discussions since there may be many answers—none either completely right or completely wrong. Ideas create more ideas in this method.

5. The Role-Playing Method or Dramatization allows students to actively participate in the learning process—either by being actors or reactors to real-life situations using previous learning and experiences. The strategy is the immediacy with which decisions must be made.

6. The Learning-Systems Method (Multi-Media Presentation) organizes the material into a package so as to promote optimum learning at the student's level. Use of cassette tapes, video tapes, and films are especially motivating to students.

7. The Production Practice Method provides experience in helping students learn to meet office deadlines.

8. The Learning Activity Packet or "LAPS" Method of instruction usually involves individually-paced learning. The student is given a kit or packet containing unit objectives, study materials, learning activities, and self tests. The student works through the kit at his or her own learning rate. Sometimes several students work on a LAP together. Although there are commercially-prepared versions, many learning activity packages are teacher-prepared.

9. The Incident-Process Method is especially useful for giving students experience in obtaining facts needed for making decisions. Students are given a series of problems concerning a business but only a minimum amount of related information about the nature of these problems. Before making any decisions, the student must obtain additional information from the teacher, group leader, or other designated person. The answers come only after the correct questions are asked by the students.

10. Office Simulation—Model Office situations provide students with realistic office experiences. Some teachers use the term "Office Simulation"; others use the term "Model Office." Regardless of what the experience is called, it affords the opportunity to give students experiences similar to those they will experience later in a business situation. Here is one method of distinguishing between these two types of classroom organization for simulation.

The Office Simulation involves use of classroom areas organized as an office, with a fictitious company actually operated by the students. The simulation materials are often commercial packages available with appropriate forms and input. The office students are assigned positions in the company, depending upon individual abilities and interests, and actually perform the office functions. A work flow is established and maintained in the operation of the office functions. The opportunity exists for students to be promoted to other positions in the "company" or transferred to other departments. In the office simulation, the role of the teacher is primarily to act as manager, supervisor, and facilitator.

In the Model Office situation, the students work in an actual office operation. Office work is generated from sources within the school or outside business organizations, usually non-profit. Students in the model office are assigned positions depending upon the organization of the office and the students' individual interests and abilities. Work flow is established by processing the incoming work orders. It is possible for students to transfer to other positions within the model office, either to other production areas or to a managerial level. In this environmental situation, it is the teacher's role to oversee the overall operation of the model office and facilitate the functioning of the model office operation.

The primary objective of an office simulation or a model office is to give students experience in performing actual office tasks. Especially important for these students is the opportunity to try out office skills before they actually begin that first entry-level office position.

Three different types of office simulation can be planned and organized for use in the classroom. These three basic types are: (1) office simulation for an entire class, (2) a small-group simulation for three to five students, and (3) an in-basket simulation designed for one student. Here are some specific aids for the teacher in implementing these simulations:

Office simulation for the entire class. The ideal type of simulation involves the entire class in the operation of an office. Usually the office simulation works best if the class is no larger than 20 to 25 students. Each of the students in the class may be given an opportunity to apply for a position within the company. The teacher's first concern should be to obtain appropriate materials for an office simulation. Perhaps the teacher has developed an office simulation for use in class. However, most teachers make use of commercially produced office simulation packages available from various publishers. In either case the office simulation should contain the following information to assist the teacher:

1. Actual materials used in the office simulation: guides for the operation of the business, input materials, a list of the usual office furniture and equipment contained in the classroom (desks, typewriters, file cabinets, etc.), and special equipment if needed.

2. Suggestions for administering the simulation: orientation procedures for the students, suggested lengths of time for the simulation, possible organizational structures for the office, and plans for rearranging the classroom for the simulation.

3. Techniques for managing the daily operations of the simulated office: methods for issuing the daily input for the students to handle, ideas for additional input from the teacher, and ways in which the teacher can facilitate the operation of the business.

4. Evaluation procedures for checking students' participation: forms to use for self-evaluation by students, manager evaluations, and teacher evaluations of student performance.

5. Optional activities: establishing a word processing center, staff meetings, and other additional activities within the business.

The teacher's role in promoting the use of an office simulation as a learning activity is extremely important in shaping the attitudes of the students toward their participation in the "working world" as "employees." If the teacher expresses an enthusiastic and positive attitude toward the simulation, the students will see the benefit of this type of office experience.

Office simulation for a small group. Sometimes in an office practice classroom not all students are ready for a simulation experience at the same time. One way in which teachers can effectively involve their students in decision-making and work-flow interaction is by having the students participate for a relatively short period of time, perhaps two to three weeks at the most, in a small group simulation. Here are a few ideas on how such a small-group activity might be utilized:

1. A small model office can be established to handle actual office work coming in from other sources. (Example: word processing for the school office)

2. Students can work in groups of four or five to set up and operate a simulated office such as a travel agency or a small sales office.

3. The simulation could be based upon a commercially available simulation designed for three to four students.

4. The teacher might develop the actual materials for the simulation, or the students might need to research the type of office to be organized for the simulation.

What would the rest of the class be doing while the small-group simulation is going on? Students would probably be rotated into the simulation experience as they gain skill in the competencies needed for the positions. When not participating in the simulation, the students would be working on individualized units of instruction in equipment operations or office procedures.

The in-basket as an individual simulation. The in-basket represents the working materials an office employee would be using on the job. Such a simulation is designed for one student to work on individually and independently. Although there is no work flow in the simulation, the in-basket does give the students experience in setting priorities and making specific decisions about office tasks. The student is faced with a number of tasks representative of a particular office position. For example, the in-basket might feature tasks that a general office clerk would face. After becoming familiar with the office situation, the student would proceed to examine the tasks and make decisions as to which tasks should have top priority. There is no interaction between the student and other individuals in the class. The in-basket can be an extremely helpful technique to use in acquainting the student with typical decisions and priorities related to the job. The teacher's primary concern in utilizing in-baskets is the student's ability to set priorities, make decisions on how individual tasks would be handled, and the production of the tasks.

Shorthand

Although there are many different shorthand systems taught in the United States, the methods and strategies for teaching theory, speed building, and transcription remain basically the same whether one teaches an alphabetic, symbolic, or machine shorthand system.

I. Method

- A. The Manual (Basic) Method has the following features:
    1. Use of rules
    2. Use of word lists
    3. Early introduction to writing
    4. Use of penmanship drills
    5. Vocabulary tests
    6. Use of formal review
    7. Use of an intensive reading and writing approach
    8. Varied activities from the beginning
- B. The Functional Method of teaching shorthand has the following features:
    1. Reading approach
    2. No rules taught
    3. Use of the key in the back of the text or otherwise
    4. No word lists
    5. No formal penmanship practice
    6. No repetitive reading and writing practice
    7. No papers corrected except for occasional tests
    8. A simplified early learning situation (one activity introduced at a time).

II. Shorthand Theory

- A. Students who learn to write accurate outlines from the beginning and who know shorthand theory are able to build their shorthand dictation speeds far more rapidly than those students who consistently write their *own* outlines.
- B. There is a positive relationship between accurate shorthand notes and transcription achievement.
- C. Approaches:
    1. Chalkboard Presentation: The teacher should:
        a. Stand to one side of chalkboard so as not to obstruct the view.

b. Talk to class—not board.
c. Decide upon the outlines to be written in advance to save valuable time.
d. Express confidence in voice while presenting new theory.
e. Use the chalkboard left to right and stand so all outlines are visible to all students.
f. Make sure outlines are large enough, correctly proportioned, and dark enough for all to see.
g. Write outlines fluently and never correct an outline but simply mark it out and rewrite it.
h. Make constructed outlines and show the fluency of writing.

2. Overhead Projector:
   a. Use of the overhead enables the teacher to face the class at all times.
   b. Correct proportions are easier to obtain on the overhead than the chalkboard.
   c. Transparencies may be reviewed later.

III. Reading

A. The reading of individual strokes is the first step in learning to read shorthand.

B. Student's recognition unit should increase to words, phrases, and eventually to thought units.

C. The final stage is the ability to grasp thought units rapidly without looking back over the shorthand lines for the meaning.

D. There is a close relationship between the ability to read shorthand rapidly and the ability to write shorthand.

E. Reading should take place from shorthand plates first. Then, progress to homework notes and finally to dictation notes.

F. Reading may be individual or group oriented.

G. Listening to reading can assist the teacher in analyzing individual difficulties. Then, particular problems should be pointed out: word signs, phrase recognition, or differentiation between shorthand characters and symbols.

H. Quick prompting by the teacher saves class time, keeps students from getting bored, and helps to retain meaning of the sentence.

I. The student should spell an outline of a word if immediate recognition does not occur, but pronounce brief forms and phrases.

J. Reading goals should be set throughout the course to provide motivation. ("Rule of Thumb"-students should read twice as fast as they take shorthand.)

IV. Writing Skill

A. It is vital that the student write with fluency from the beginning. It is much easier to improve poorly written outlines through practice than it is to break students of the habit of drawing outlines.

B. Writing with pens causes less tension on paper, less cramped fingers, easier reading, and less fatigue.

C. Easy material should be used first.

D. Tracing shorthand outlines from plate notes builds confidence in the student. This method gradually increases the speed with which students write.

E. Air writing utilizes a little more difficult technique than tracing because the student must compose the outline in the air as the teacher controls the speed. Air writing is an excellent medium for teaching students "to think" in shorthand.

V. Dictation Practice

A. The goals of each dictation practice should be clearly stated:
   1. To hear accurately.
   2. To improve penmanship.
   3. To develop fluency and speed.
   4. To emphasize certain shorthand principles, brief forms, or phrasing.
   5. To build shorthand and English vocabulary.
   6. To provide material calling for the application of new outlines.
   7. To provide material calling for the application of various rules of spelling and punctuation.

B. Some basic rules regarding dictation are:
   1. Time the dictation.
   2. Dictate at a rate that will *not* permit students to draw their outlines.
   3. Use easy material for speed building.
   4. Preview the dictation on the chalkboard.
   5. Use a postview. It is essential for the first few weeks.
   6. Do not permit students to copy from the text while dictation is being given.
   7. Use short spurts of dictation and gradually build up to sustained dictation.
   8. Use new matter dictation in first semester. The amount will vary according to level, i.e., high school or college.
   9. Allow each student to proceed as far and as fast as possible.
   10. Learn to dictate skillfully.
   11. Teach the students to dictate or at least understand how to dictate.

C. These are some suggested Speed-Building Plans:

1. Short Spurts of Dictation includes the usage of varying pauses, eventually getting the student accustomed to hearing one word while writing another.
2. Broken-Record style of dictation is used for beginning students who need repetition in order to automatize the shorthand outlines.
3. One-Minute Speed Building Plan utilizes repetition of the same material three times but at a different and higher rate each time, then dropping back to the medium speed for control writing.
4. Pyramid Plan divides material into parts of various lengths and each part is then dictated at a certain speed. The object is to increase the student's speed 20 words per minute on the take. Using this plan, the dictation begins at the highest speed and is gradually decreased as the length of the dictation period is broadened.
5. Stair-Step Plan uses four or five letters and dictates the first one at a set speed, then the first one again at a higher speed adding the second letter at a lower speed, etc. This plan builds speed and endurance.
6. Progressive-Week Plan uses one letter for speed building throughout the week. The same letter is dictated four times each class period, the first three times at increasing rates of speed with the fourth time being dictated at a lower rate for control. Each day the dictation starts 20 words a minute faster than the preceding days.
7. Spurt-Dictation Plan is excellent for dealing with plateaus in skill development. Instead of using 20 standard word groups, the teacher dictates by the line using a six-second dictation level per line. The lines vary in size.
8. Progressive Dictation but Varying the Pauses is another commonly used plan. The pauses start out usually at 15 seconds and decrease to nothing—thus the dictation increases.

VI. Transcription Practice

A. Pretranscription training should be introduced during the first semester.

B. Possible Steps for Developing Transcription Techniques:

1. Use plate materials first
2. Then homework notes
3. Practiced dictation material
4. Dictated review problems
5. Short business letters
6. Medium-length letters

C. Special Features in Transcription Training:

1. Corrections
2. Letter placement
3. Enclosures
4. Carbon copy
5. Special mailing
6. Postscripts
7. Two-page letters
8. Multiple carbons
9. Envelopes
10. Interoffice communication

D. Office-Style Dictation should be introduced gradually after pretranscription drills have been mastered.

E. Mailability (final copy the first time) is the emphasis for evaluation.

F. Transcription Drills:

1. Transcribing in thought units
2. Comparison of typing and transcription rates
3. Accuracy typing
4. Comparison of typing and transcription rates on letter copy
5. Transcription of the same letter from shorthand notes two or three times to increase the student's transcription rate
6. Drill on typing from shorthand outlines written on the board selected from words and phrases appearing in the letter to be transcribed
7. A preview of the difficult shorthand outlines in the letter to be dictated for transcription
8. Dual-purpose sentence drills
9. Dual-purpose paragraph drills
10. Transcription power drive
11. Eyes-on-copy drill
12. Manipulative drills

G. Build Skill in the Use of Transcription Materials

1. Supplies
2. Notebook

VII. Media to Assist in Instruction

A. EDL—words are flashed on screen at predetermined intervals so the student can identify the word before the next appears.

B. Wired system—students use individual control units that are wired to the main console unit controlled by the instructor. Usually, this system has multi-channels for individualized work.

C. Wireless system—same as the above, but the individual student control units are completely transistorized. There is a main wire acting as an antenna running around the area designed for using the system.

D. Dial Access system—uses the telephone to dial different channels of instructions from a main control unit located somewhere else in the school.

E. Individualized Cassettes—may be of varying lengths and used either on the premises or as homework. Many individualized classes where students progress at their own rate are designed around cassette recordings.

F. AVT (Audio-Visual-Tutorial) system—uses voice and visual learning.

VIII. Homework

A. Specific instructions for completing the homework should be given.

B. Some variation in the homework is necessary in order to attach importance to it rather than rote copying.
1. Encouragement of shorthand laboratory usage.
2. Check-out system of shorthand materials from a library source.
3. Students work in pairs and dictate to each other.
4. Students take dictation from newscasts, television shows, radio programs, sermons, etc.
5. Students write shorthand from some other source, i.e., newspaper, magazine, musical lyrics, etc. during advanced semesters.
6. Hand out a printed take having liberal shorthand preview words. Ask students to write the take.
7. Have the students transcribe some of the letters from the day's lesson on typewriter preferably. This may be done using text or homework notes.
8. Ask students to submit notes they have taken in other classes using shorthand.
9. Encourage the use of assignments that encourage students to use their shorthand *outside* of class.

C. Whenever a new element is introduced into the homework, specific directions should be given the students regarding the procedures to follow.

D. Homework should require the student "to think" about what he/she is doing.

E. Some Goals to Set:
1. Specific reading rate goals while doing their homework.
2. Specific self-dictation rate goals should be set. These will necessarily be low, but at the end of the first year, students should be self-dictating at 60 wpm.

F. The amount of homework is not the important thing but that the teacher encourage the students to practice according to their individual needs.

G. Homework does not have to be graded but should be checked to see that it is done.
1. Return papers early in the learning process so that students will correct proportions, develop fluency, and follow assigned procedures.

H. Students must understand the importance of homework in developing the total shorthand skill. The skill cannot be developed only by performing in class but needs the additional practice provided by homework exercises between class session.

IX. Testing

A. Do not give tests too frequently.

B. Time devoted to testing is time that cannot be spent in building reading and writing skill. In all testing, speed and timing should be incorporated as essential elements.

C. Brief Form Test
1. A high percentage of accuracy is required.
2. Should be dictated after writing is introduced.
3. End of first semester goal is to record brief forms at the rate of one every two seconds.

D. Word List Tests
1. Emphasize the importance of accuracy.
2. Much controversy about the usage of isolated words.
3. If used, should be dictated, recorded, and transcribed. Both areas should be evaluated.

E. Longhand and Typewritten Transcription Tests
1. Use longhand transcription test early in course to determine reading skill, but writing rate is a factor that must be included. Most people can write only 30-35 wpm in longhand regardless of the reading rate.

F. Shorthand Dictation Tests
1. Best type of evaluative test.
2. More tests to measure progress should be given than to provide grades for course.
3. Five percent error allowance is generally permitted but three percent is becoming more prevalent at advanced levels.
4. Material may or may not be previewed depending on the level of the instruction.
5. Word-per-minute intervals should be ten instead of twenty.

6. More than one successful attempt should be utilized at a given level of dictation—preferably three.
7. Three-minute opportunities are usually used as the measure instead of five minute.

G. Standards for Evaluating Shorthand

Standards. Any standards indicated for shorthand instruction should be flexible and should be reconsidered each year. Abilities of students, length of class period, shorthand requirements in area offices, and equipment should all be considered in determining standards. There are a number of components that a teacher needs to consider in determining an individual student's final grade for any one semester of instruction. Among these are: brief/speed form tests; class attendance; dictation speed rates; homework; lab attendance, if a lab situation is present; mailable letters; reading rates; theory tests; transcription elements such as spelling, punctuation, vocabulary, grammar, proofreading, etc. *The following categories for evaluation and percentages are guidelines only.* A complete description of the grading procedure is outlined in Appendix H.

END OF SEMESTER I	PERCENT
Reading	15%
Homework and Theory Quizzes	10%
Dictation Speed Rates	30%
Transcription Rates	20%
Chapter Tests	15%
Non-theory Quizzes	10%

END OF SEMESTER II	PERCENT
Reading, Homework, Quizzes and/or Lab	10%
Dictation Speed Rates	40%
Transcription Rates	20%
Mailable Letters	10%
Complete Theory and/or Chapter Tests	10%
Non-theory Quizzes	10%

Standards. In determining the standards for the second year of shorthand, the teacher should take into consideration the following factors: the ability levels of the students, the length of time allotted for instruction, the previous achievement of the students, employment requirements of the community, and the goals of the students. When there is a second year of instruction in shorthand, dictation speed building typically represents the first semester of work and emphasis on transcription, the second semester.

The following categories are presented only as guidelines and could be adjusted upwards or downwards depending upon the ability level of the class. A complete description of the grading procedure is outlined in Appendix H.

END OF SEMESTER III	PERCENT
Dictation Speed Rates	20%
Transcription Rates	20%
Mailable Letters	20%
Chapter Tests, Complete Theory Tests, and Quizzes	10%
Homework and/or Lab Practice	10%

END OF SEMESTER IV	PERCENT
Dictation Speed Rates	20%
Transcription Rates	20%
Complete Theory, Chapter Tests and Quizzes	10%
Mailable Letters	40%
Homework and/or Lab Practice	10%

Typewriting

Techniques used in teaching typewriting will necessarily vary with the manner in which the typewriting instruction is organized. Traditional group instruction techniques will differ from the methods and procedures used in an individualized approach to typewriting instruction. However, certain techniques apply to all typewriting instruction.

Psychology of skill development. Learning typewriting, as well as other psychomotor skills, rests with student readiness to learn. Readiness to learn, however, appears to have less relation to age or interest than to the extent which the student has obtained all the prerequisites necessary in the learning of something new. Prerequisites to learning a skill include good form, instant recall of information, and adequate understanding—all elements of skill performance. Readiness to learn psychomotor skills probably occurs best when the learning atmosphere is without interference. All information, understandings, and concepts needed for correct performance of a typewriting task, for instance, must be learned at times other than when increased performance skill is the goal.

Certain information is obtained by typing copy that contains specific matter; also, the process of working through "problem" copy under specific-direction conditions will enable the learner to obtain requisite information. Nevertheless, skill levels are increased more effectively when information is learned at times other than during drills designed to increase manipulative powers.

Motivation plays a major role in learning the typing skill. Motivation then must come from the student internally rather than from external sources. The desire to learn appears to be most highly developed when:

1. The learner knows the reasons for all requests for task performance.
2. The learner can recognize immediately, through rapid feedback, how well he/she is progressing toward the goal of the task he/she is performing.
3. The learner is successful in his/her efforts to achieve the goal of the task he/she is performing.
4. The learner is helped to recognize the corrective information needed to insure success in achieving the task goal.
5. The learner recognizes sincere teacher interest and concern in helping him/her do better.

The following techniques for use in teaching typewriting illustrate the principles discussed previously.

1. During the early stages of learning, teacher demonstration, student emulation, constant teacher observation, immediate feedback to students, and praise are techniques to use.
2. Automatization of the keyboard is absolutely essential; all possible efforts must be made to discourage students from becoming hand watchers. Included should be continuous reminding to keep eyes on copy; keeping all practice moving briskly to encourage good habits; watching posture and positions; using frequent and easy location security drills; directing all drills carefully; keeping all drills and practice short; and, preventing the practice of bad habits.
3. Evaluation during the early stages of learning should include an emphasis on speed, not accuracy.
4. To build stroking speed on straight copy, posture, position, stroking techniques, and keyboard mastery must be flawless; all practice must be short (no more than one minute); repetitive practice for speed building is necessary; easy materials should be used; let students know that you expect them to succeed; keep individual progress charts for all aspects of performance; help students recognize ways that improvement can be made; use guided writings to help students pace themselves; use techniques that sometimes force speeds to higher levels (short goal-setting drills are especially appropriate); and keep students informed of progress at all times.
5. To build stroking accuracy on straight copy posture, position, stroking technique, and keyboard mastery must be excellent; verbal inducement by the teacher is essential as a persuasive measure; use error boundaries within which students are expected to perform; use guided writings; employ teacher dictation; and postpone emphasis on accurate stroking for at least six weeks—preferably for nine to twelve weeks. A student cannot build speed and accuracy simultaneously on a given drill.
6. To build speed on "problem" copy, emphasize posture, position, stroking technique, and keyboard mastery; eliminate the "problems" by filling in all information prerequisites before expecting students to apply information to the "problem"; force speed by helping students refine manipulation techniques; give recurrent practice on problems (always short, intense efforts) and few grades; give verbal inducement to point out ways of improving; let students know as soon as possible how they are progressing; direct all drills; keep all practice short, intensive, and repetitive; and give students 5 to 8 minutes of individual practice on a problem (seldom longer) after correct patterns have been well established.

Instructional aids. Benefits can be derived from any instructional aid that arouses the interest of a student about the subject of typewriting, that motivates the learner toward the desired objectives, and that facilitates the learning process.

Some of these motivational as well as instructional aids are audio-tutorial carrels and practice stations, bulletin boards, business forms used in community businesses, chalkboards, closed circuit TV, demonstrations, field trips, films, filmstrips, transparencies, individual progress charts, keyboard charts, multiple-channel listening stations, newspapers, pacers, posters, secretarial and business magazines, speakers, technique rating charts, textbook illustrations, videotaping, and workbooks. Uses of instructional aids are limited only by the imagination of the instructor.

Standards. Evaluation of the typewriting skill should be based on the instructional objective developed from the competencies needed by the typist.

Instructor guides provided with typewriting instructional materials should be utilized in identifying appropriate evaluation measures of instructional objectives. There are general considerations to be made:

1. In beginning instruction, evaluation should be based on the typed product. Teach for proper technique, but evaluate on results. Emphasize

speed first, then accuracy. After the beginning stages, accuracy is more important.

2. Constant attention should be paid to accuracy of work and development of pride in work.
3. Responsibility for proofreading must be assumed by student. The teacher should not identify the error, but just indicate there is an error, and it is the student's responsibility to find and correct it.
4. Accept only that work which is satisfactory as measured by office standards.
5. As instruction progresses, evaluate in terms of whether the document could be mailed.
6. Emphasize production speed and accuracy rather than straight copy time after initial typewriting instruction.

Recent Relevant Research

Office Education

Benjamin, Helen M. "A Comparative Analysis of the Job Satisfaction of Correspondence and Administrative Secretaries in Word Processing Centers." Unpublished Doctoral thesis, University of Iowa, Iowa City, 1976.

The study investigated if differences in job satisfaction existed between correspondence and administrative secretaries and among their level classification in word processing centers. Need characteristics indicated no statistically significant need deficiencies between the two groups existed. Esteem needs, however, did show a greater need deficiency among correspondence secretaries than among administrative secretaries.

Bragg, Sara Morris. "A Comparative Study of Major Task Requirements of Word Processing and Administrative Support Personnel and the Traditional Secretary." University of Georgia. 1976. DA 37/08, 4799A.

A comparison was made of the major tasks performed by word processing personnel with those major tasks performed by administrative support personnel as to responsibility, most difficult, most time consuming, and involvement of the supervision function. Over half of the nine task variables tested differed significantly in relation to time-consuming and difficulty of task. Three of the nine task variables differed significantly in the other areas.

Frederickson, Esther. "A Task Analysis of 120 Experienced Secretaries in the Washington, D. C. Area." Independent Study. Ferris State College, Big Rapids, Michigan, 1976.

A five-page questionnaire was used to collect responses during personal interviews of 120 secretaries in the Washington, D.C. area in order to analyze tasks most frequently performed by upper-level secretaries in government-related agencies. Information was gathered in regard to length of service, previous experience, office title, Civil Service rating, salary, fringe benefits, extent of training, promotional opportunities, and tasks performed.

Gerhardt, Thomas Harris. "Characteristics of Office Workers Who Have Advanced Rapidly in Their Fields—With Implications for Training." Southern Illinois University at Carbondale. 1978. DA 39/02, 624A.

This study determined the characteristics of office workers who have advanced rapidly in their fields or closely allied field, the characteristics of the offices in which these persons work, and the implications these characteristics hold for the training of office workers.

Hahn, Ronald Dean. "Characteristics of Office Administration Personnel and Requirements for Future Employees with Curriculum Implications for a Four-Year Degree Program in Office Administration." Northern Illinois University, 1976. DA 38/08, 4800A.

This survey study of chapter officers of the Administrative Management Society determined selected characteristics of currently employed office administration personnel, determined employment requirements for future office administration personnel, compared the characteristics of currently employed office administration personnel with the requirements for future employment requirements and determined the importance of college courses in preparation for office administration positions.

Hohmes, Juanita Suttle. "An Analysis of Secretarial Classifications and Performance with Implications for Business and Education." University of Arkansas, 1977. DA 38/05, 2906A.

This survey of organizations in the Metropolitan Tulsa, Oklahoma, employing over 500 people, gathered data concerning nine factors: (1) secretarial classifications, (2) changes between 1970-75 in the organizational structure of secretarial positions, (3) anticipated changes in the organizational structure of secretarial positions, (4) criteria used for procurement of secretaries at the highest level, (5) weaknesses secretarial employees possess, (6) secretarial employees' awareness of the classification systems of their respective organizations and of the job descriptions of their positions. (7) the tasks secretaries perform, (8) the educational preparation of secretarial employees, and (9) the adequacy of the educational preparation of secretaries.

Keith, Lenora Sue. "Development of an Instrument to Evaluate Problem-Solving Skills of Secretarial Students: A Feasibility Study." The Ohio State University, 1976. DA 37/11, 6912A-6913A.

This study developed a prototype instrument to evaluate problem-solving skills of secretarial students. The instrument yields three scores for each subject: an Overall Proficiency Index, an Overall Efficiency Index, and an Overall Solution Index.

Kutie, Rita Catherine. "An Analysis of the Job Dimensions of Word Processing Secretaries, Administrative Support Secretaries, and Traditional Secretaries and the Correlation of These Job Dimensions with Job Factors." Kent State University, 1977. DA 38/09, 5202A.

This pilot research study analyzed the behavior-oriented job dimensions for six categories of secretaries: traditional secretaries, administrative support coordinators, administrative support secretaries, word processing operators, word processing head operators and word processing supervisors. Job profiles indicated differences among the six groups of secretaries for one-half of the job dimensions. Results of the study indicated that there were no significant differences among the six groups in general job satisfaction.

Lewis, Stephen Dale. "The Effect of Word Processing on Business Letter Writing." The University of North Dakota, 1977. DA 39/01, 76A.

Using a two-part questionnaire to survey word processing center supervisors and word processing users, this researcher determined the relationship of changes in business letter writing in organizations utilizing word processing to selected characteristics of the organization.

Luft, Roger Leslie. "Desirable Non-Technical Employment Qualities for Secondary Students Participating in Cooperative Work Experience: Perceptions of Employers, Coordinators and Counselors in Utah." Oregon State University, 1977. DA 38/07, 4128A.

This study, first, determined the non-technical employment qualities needed by cooperative work experience students and, second, determined whether or not employers, coordinators, and counselors agree on these non-technical employment qualities. The study also considered whether and how these qualities can best be developed on the job or in the classroom.

O'Neil, Sharon Lund. "Worker Perceptions of Skills Necessary for Survival in the World of Work." University of Illinois at Urbana-Champaign, 1976. DA 38/05, 2819A.

Using a telephone survey instrument, interviews were conducted with a variety of workers; consultations were held with manpower personnel, research authorities, vocational and technical research and development personnel at the state level, vocational educators and others, to determine the occupational skills necessary for survival on the job.

O'Sullivan, Mary Burke. "Word Processing in the Office of the Future: Comparison of Forecasts of Businesspersons and Educators." University of Illinois at Urbana-Champaign, 1977. DA 38A/10, 6091A.

Using a modified Delphi technique, this research project was designed to secure and refine the forecasts of business and education groups concerning the importance of word processing systems in the office of 1984. Forecast issues included the expected use of automatic typewriters, the work environment, the functions of correspondence secretaries and administrative secretaries, the need for shorthand writers in the office of the future, and the importance of vocational education.

Rencz, Donald Samuel. "An Analysis of Tasks Performed by Low-Ability Office Employees as viewed by Office Supervisory Personnel in Alberta, Canada." Oregon State University, 1978. DA 39/03, 1275A.

Based on the views of office supervisory personnel, this study identified the tasks performed by low-ability office employees, the skills required to perform these tasks, the equipment and machinery operated by low-ability employees, the skills required to increase the employability of these persons, the unattractiveness of low-ability tasks, opportunities for advancement and for decision-making in low-ability office tasks, and the tasks performed more efficiently by low-ability office employees.

Ross, Novella M. "An Analysis of the Nature and Difficulty of Reading Tasks Associated with Beginning Office Workers' Jobs in the Columbus, Ohio, Metropolitan Area." The Ohio State University, 1977. DA 38A/11, 6678A.

The study compared the reading materials handled by beginning office employees with the reading activities contained in the three most widely used instructional materials in senior vocational office education classes. The researcher recommended that students be provided with opportunities to read all types of materials that are job-related, including more emphasis on form letters, manuals, rate books, as well as statistical and financial tables.

Sanders, Rubye Coleman. "An Identification of Competencies Needed by the Beginning Secretary as Perceived by Three Groups of Judges." Unpublished Doctoral thesis, The University of Georgia (Athens), 1977.

Secretaries, office managers, and business teachers were surveyed to determine their perceptions of competencies needed by beginning secretaries. The three groups differed significantly on seven of eight factors pertaining to the frequency of performance of secretarial competencies and did not agree of the competencies required of secretaries.

Simpson, Kawanna Jo. "Error Acceptability in Written Business Communication as Perceived by Business Educators and by Business Communicators." University of Kentucky, 1976. DA 38/02, 600A.

This study had the three-fold purpose to determine the existing practices of business communicators concerning acceptable English usage and acceptable placement procedures in written business communication, to examine the existing opinions and evaluative practices of business educators, and to analyze and compare the standards of error acceptability in written business communication as applied by university-level business educators to those applied by business communicators.

Spring, Marietta. "A Survey of Word Processing Centers in the Urban Corridor of Virginia." Virginia Polytechnic Institute and State University, 1977. DA 38/12, 7093.

Seeking to determine the status of word processing centers within the Urban Corridor of Virginia, the researcher developed a Word Processing Interview Guide and, then, used the guide to identify the factors in the word processing conversion process and to identify the typing and non-typing tasks performed, along with the employment tests administered, in the word processing centers.

Thomas, Edward G. "The Effect of Office Practice Classes on Student Knowledge." Delta Pi Epsilon Journal, 18, No. 3 (May 76) 28-39.

The simulated office practice approach, the cooperative arrangement, and the model office plan methods of teaching were compared to determine their effect on student knowledge and attitude. All three methods had a significant positive approach. Significant differences were found only in selected areas.

Turner, Hilda Jean. "A Study of Word Processing Centers Resulting in the Development of a Word Processing Instructional Manual." University of Arkansas, 1977. DA 38/05, 2742A.

Findings of this interview study of randomly selected supervisory personnel from word processing centers in Arkansas support these conclusions: (1) the concept of word processing should be included in the training for secretarial students, and (2) a word processing manual should be made available to both secretarial students and business teachers. This manual should include sections on introductory information, procedures, personnel, equipment, and careers.

Typewriting

Blucas, Stephen Paul. "Individualized Typewriting Instruction in Public Community Colleges in the United States: Comparison of Instructors' Opinions on the Importance of Selected Individualized Instruction Activities. Unpublished Doctoral thesis, Michigan State University, East Lansing, 1977.

Community colleges in the United States offering secretarial programs were surveyed to determine the use of individualized typewriting instruction. The individualized instruction was used most often in beginning typewriting (92 percent) and by many in intermediate and advanced typewriting courses. Instructors evaluated the success of individualized instruction in typewriting quite favorably.

Dixon, Sandy, Jr. "The Effect of Letter-Level Technique on the Reduction of Errors in Intermediate High School Typewriting." Unpublished Doctoral thesis, Michigan State University, East Lansing, 1976.

A control and experimental class of high school students in intermediate typewriting were selected to particpate in a study to determine what affect the letter-level technique has on reduction of errors as measured by five-minute timed writings. Students taught by the letter-level technique as opposed to the syllable and word method became more accurate typists and typed with noticeably higher net words per minute.

Ganger, Sue Clinkscales. "A Study of the Effect on Straight copy and Production Typewriting Rates with Three Teaching Methods in Beginning Typewriting." University of Arkansas, 1977. DA 38/05, 2501A-2502A.

This experimental study determined the effect of time in practice activities on these factors of typewriting performance: (1) gross words per minute for a five-minute timed writing on straight copy, (2) total number of errors for a five-minute timed writing on straight copy, and (3) net production rate a minute on a 25-minute production timing on business letters. Three methods of teaching typewriting were compared: the daily-timed method, the long-term timed method, and the variable-timed method.

Hilgedick, Lorraine Isabell. "Proofguides as Instructional Aids in Beginning Typewriting." University of Missouri-Columbia, 1976. DA 37/09, 5545A.

Results of this experimental study indicate (1) that the use of proofguides as instructional aids by beginning typewriting students does not develop a higher level of achievement on an application test, and (2) the utilization of proofguides during instructional sessions does not produce a higher GWAM rate, with fewer errors and with a higher level of accuracy.

Kurtz, Margaret A. "The Effects of Goal Setting and Anxiety on Accuracy of Production Typing Task Performance." Boston University School of Education, 1978. DA 38/12, 7092A.

The researcher conducted two separate experiments to determine whether or not goal setting activities and moderate anxiety conditions have postive effects on performance of production typing tasks. The first experiment was based on Rotter's Social Learning Theory; the second, on Speilberger's State-Trait Anxiety Theory.

Nord, G. Daryl. "An Analysis of Selected Elements in First-Year Typewriting Within American High Schools." The University of North Dakota, 1976. DA 38/01, 83A.

This nation-wide study analyzed elements from five areas in first-year typewriting: scheduling patterns, backgrounds of teachers, equipment and instructional materials utilized, approaches to teaching, and course content. The researcher concluded, in general, there are more similarities than differences in the teaching of first-year typewriting across the country.

Snyder, Virginia Hammer. "The Effect of Emphasizing Proofreading and Selected Basic English Rules in a Beginning Typewriting Class at the College Level." The University of Alabama, 1978. DA 39/04, 2591A-2592A.

Results of this experimental study indicated that special emphasis on proofreading and on selected English rules (capitalization, punctuation, spelling, and word division) in a beginning typewriting class at the college level had a positive effect, although the improvement noted was not statistically significant.

Shorthand

Dortch, R. Neil. "A Study to Determine the Relationship Between Shorthand Outlines Constructed According to Theory and the Accuracy of the Transcript." Unpublished Doctoral thesis, University of Wisconsin, Madison, 1976.

Second-semester students from nine selected high schools participated in a study to determine the relationship between the accuracy of student shorthand outlines and the accuracy of the transcripts of those particular outlines. Conclusions from the finding were that accuracy of a transcript is dependent upon correct shorthand outlines and that the complete method of transcription is to be preferred over the partial method of transcription.

Foster, Helen Elizabeth . "A Study of Selected Factors for Predicting Success in Beginning Gregg Shorthand." Northern Illinois Univeristy, 1977. DA 38/04, 1832A.

Selected elements of shorthand learning were studied at various times during the learning schedule in beginning shorthand to determine the relationship between these selected elements and final achievement in the course. Achievement appeared to be based on emphasis of a combination of factors during the skill development stage rather than any one specific factor.

Hammers, Cheryl Elaine Peat. "Predicting Success in Individualized and Traditional Beginning Shorthand Courses." Texas Tech University, 1977. DA 38/08, 4528A.

Results of the study indicate that information obtained from the Myer Briggs Type Indicator, the ERC Stenographic Aptitude Test (Phonetic Spelling), the Rotter-Internation-External Control Scale and a student information survey could be used to predict shorthand achievement in traditional and individualized beginning shorthand courses at the college level.

Haney, Annice Mauldin. "The Effect of Selected Shorthand Transcription Drills upon Transcription Skill Development." Unpublished Doctoral thesis, North Texas State University, Denton, 1976.

First-year shorthand students participated in a study to determine the effect of the use of selected transcription drills in beginning shorthand on the ability of students to produce both typewritten copy and mailable letters from shorthand notes. Significantly higher and more accurate transcription rates and higher speeds on both previewed and unpreviewed mailable letter production tests were achieved by students using transcription drills.

Hooven, Jean Alderfer. "The Effects of Intensive Practice of a Target Vocabulary in First-Year Gregg Shorthand." Temple University, 1978. DA 39/04, 2007A.

Intensive practice of shorthand outlines for 500 high frequency words had a positive effect, according to the study, on achievements in first-year Gregg shorthand at the high school level. Achievement was measured by (a) recording outlines for the target words, (b) recording outlines for unfamiliar words in word-list and contextual form, and (c) transcribing contextual material.

Newell, Verda Marie Mylander. "A Study of the Effect of Theoretical Correctness on Dictation Competency and Transcription Success in Beginning Gregg Shorthand." University of Idaho, 1978. DA 39/04, 2008A.

Using as study subjects beginning shorthand students from a large high school, a community college, and a major college, this experimental research project found that the emphasis on theoretical correctness had no significant effect on any of the populations when measured by success on dictation and transcription. The emphasis on theoretical correctness did have a significant effect on the number of errors made on word lists to measure theory.

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DESIGNING PROGRAMS AND TEACHING COMMUNICATION AND BUSINESS WRITING

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DESIGNING PROGRAMS AND TEACHING COMMUNICATION AND BUSINESS WRITING

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SAMPLE COURSE SYLLABI
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DESIGNING PROGRAMS AND TEACHING COMMUNICATION AND BUSINESS WRITING

An Overview

Introduction

Educators are often criticized by the public for the widespread inadequacy of communication skills. In the past few years, there has been a deluge of published articles and research reports indicating the inability of the nation's youth to express themselves. Not surprisingly then, are the demands of business managers for employees who can write, speak, and listen effectively. Other published articles stress the inability of managers to communicate orally in formal presentations, in staff meetings, and in manager-to-employee situations.

The task of communicating in business will not be any easier in the 1980's. In conjunction with increasingly sophisticated information systems and word processing equipment, there will be an ever-increasing need for people who are trained in communication skills and in using or managing communication and equipment. Thus, effective instruction in the total communication process will be needed throughout the 1980's. Students must develop their writing, speaking, and interpretative skills and understand the increasing communication demands generated by the information explosion and technological advancements.

There is a strong push from employers to improve communication training in the educational system. But, what communication skills should or can be taught. At what levels of training or education should communication be taught? Administrators must justify the value of every course in the business curriculum and often they do not understand this nebulous term: "Business communication".

Communication Components

Generally, overall content of a business communication program centers around the following categories of communication:

1. Communication theory
2. Basic language skills—grammar and punctuation
3. Letter writing
4. Report writing
5. Oral communication—dictating and speaking to small and large groups
6. Interpersonal communication—listening, interviewing, and nonverbal interpretation

In practice, it is not possible to provide comprehensive instruction in each of these categories in a one-semester course. However, it is possible to make meaningful progress in developing one of more specific communication abilities of many students. Naturally, greater headway can be made with additional courses that focus on specific communication skills. For example, some universities provide a basic business communication course in which letter writing and report writing are the focus of attention. In addition to this course, a report writing and communication course provides substantial report writing with increased oral communication activities indicative of the communication requirements of managers. Additional oral communication training is offered in an oral communication course which is designed to strengthen listening ability and nonverbal skill, interviewing techniques, and oral communication competence in a variety of business settings. Specialized writing skills involving statistical, technical, or vocationally styled messages are best learned through experiences involving the vocabulary as well as the critical messages found in technical writing.

Although a course concentrates on one or two specific communication skills, effort should be made to stress the interrelationship of all other communication skills in the business setting. (See course outlines which follow).

Education Levels

The main difference in communication training through the progressive education levels—high school, community college, and university—is rigor. The demands on student performance in developing communication skills are greater at each higher level of education. As expected, a greater number of business communication courses is offered at each higher level of education. Differences among the communication programs at the three educational levels can be better understood by reviewing the course objectives, content, teaching aids, and evaluation suggestions shown on the following pages.

Designing Courses to meet the Needs of the Community and the Student

Identifying specific, immediate, as well as long-term goals may be difficult, but is a necessary procedure. The primary objective of courses in business communication should be to help students solve effectively their communication problems through improvement of habits and skills in all phases of communication—reading, listening, speaking and writing. Without a solid educational foundation in these elements of the total communication process, the students will not be prepared to function effectively on the initial job or at various management levels.

Courses in writing and communication may vary in length from one semester to one year. Content should depend upon the needs of the students and on the

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time available for instruction. However, the content of courses in business communication should reflect the basic oral and written skills that are critical for success in business.

Suggested Educational and/or Job Training Designs

The following course classifications suggest a schedule of content and time allocation that will not be appropriate for all educational levels or for all classroom needs. They do reflect, however, the research and ideas of experienced instructors of business writing and business communication from secondary education and from post-secondary education, community college and the university. Input from business advisory councils is also reflected.

Content, Methods and Design for High Schools and Initial College Courses

An overview of basic fundamentals, initial letter and memorandum messages and an introduction to report writing typifies initial courses in high school and college. Sample course syllabi are presented on pages 9-17.

An Integration

Basic letter writing and report writing abilities do not exist as separate or unique topics in business. Reports, letters, memos, discussions, telephone messages, etc., are the life links of business, so they become tools as well as processes.

In Illinois schools, communication skills are taught in classrooms yet are related to the businessworld either in a role playing case or through a classroom or model office simulation.

When business employees return to schools to complete communication courses, the make believe element is eliminated and the realness of the effort permits both students and instructors to experience communication.

Therefore, until teacher certification requirements are changed, until writing, speaking and communcation courses are reimburseable to public institutions, and until accreditation criteria appraise the purposes and successes of basic writing and communication courses, most high school and college courses must continue to be taught as school-based or textbook-based courses.

Office Practice and Word Processing Applications

Integrating writing and communication skills as viable components of office practice and word processing instructional experiences is a natural process. Offices, businesses, and data centers give and receive messages as their fundamental business activity. Logically, letter writing, report writing, group discussions, and speaking and listening (and the many other language skills) fit well in other business courses. Curricula planners, especially high school planners, should include major cummunication units in courses currently in the curriculum. The language input and message appraisal processes are the major needs of data handling in word processing centers. Planning, writing, editing and reading business-related messages are office simulation activities.

We suggest that shorthand, transcription, typewriting, office education and data processing courses include the teaching, if necessary, reviewing, and experiencing the act of communicating through messages.

Instructional Strategies

No single instructional strategy is advocated for teaching communication courses. No one strategy has been proven to be most effective for learning communication skills. Consequently, a communication instructor should consider the advantages and disadvantages of various strategies and seek to utilize the most effective strategy or combination of strategies for the situation. An instructor must consider student capabilities, instructor strengths and weaknesses, space limitations, budget specifications, and other environmental restrictions. Instructional strategies, which may be used separately or in combination to facilitate specific situations, are discussed.

Team Teaching

The effectiveness of the team-teaching strategy depends heavily upon the abilities and attitudes of the faculty. Some advantages of this approach may be (1) more efficient utilization of school resources and physical plant and (2) increased student motivation as a result of several instructors' or business specialists teaching styles.

Team teaching may be most applicable to a business communication course which involves written, oral, and interpersonal communication. By utilizing faculty with specific communication strengths, students will receive expert training in specific areas. However, without sufficient team planning time, the instructional strategy can easily become ineffective.

Simulation

Bringing relevancy to the business communication classroom is a typical student demand. Simulation can be useful in causing students to see the practicality of communication concepts. Many communication skills can be reinforced in simulated activities. For example, by participating in work departmental meetings, students may become aware of group dynamics and their own communicative abilities. Playing the roles of the accountant or personnel manager may cause students to become aware of problems faced by different interest groups. On-the-job internships or cooperative learning experiences are excellent.

Letter writing and report writing assignments in simulated business situations may motivate students to focus on "real world" writing problems. Through simulation students are actively involved in written, oral, nonverbal, interpersonal, and group communication skills. Both booklet based simulation, teaching machine based simulations, computer assisted or conducted simulations and model office simulations are encouraged.

Programmed Instruction

The use of programmed instruction lends itself to various purposes, such as remedial instruction, enrichment activities, and independent study projects. The effectiveness of programmed instruction depends upon the self-discipline of the student. Underlying the use of programmed material is the assumption that the student has the ability to read, understand, and execute instructions. Elements of programmed instruction include:

(1) sequence and progression in steps,
(2) appropriate student response,
(3) reinforcement of positive or negative responses, and
(4) direction to appropriate principle following negative response.

Programmed instruction is an appropriate approach to the problem of poor basic writing skills found in various types of communication classes. Since there is usually little class time for instruction in basic writing skills, programmed instruction in a laboratory setting can aid students needing remedial work.

Individualized Instruction

In an individualized or personalized instruction situation, the student is permitted to select those areas of interest to him from a broad overview of course content. The teacher serves as an advisor and consultant in the selection and learning process. Loss of communication between the student, instructor, and class members is possible with this approach. Consequently, an instructor who uses this approach must have a personal knowledge of students' communication abilities, language skill diagnostic scores, attitudes, and interests.

The instructor should confer with the student to determine the appropriate communication study program. Likewise, evaluation is a cooperative venture by the student and teacher in respect to agreed-upon objectives.

Independent Study

In independent study, the student is solely responsible for surveying the subject matter area and for selecting the problem to study with instructor guidance, the student determines how to solve the problem although the teacher may help solve it.

Evaluation in independent study may be the sole responsibility of the student; the student develops criteria for evaluation and judges to what extent his goals have been achieved. However, most students are not able to identify specific communication components and appropriate measurement and evaluation criteria.

Written Communication Strategy

Some communication instructors advocate that written communication can best be learned by constant writing—in class and through weekly homework assignments. On the other hand, a few communication instructors have suggested that there are suitable non-conventional strategies, such as teaching writing by analyzing writing in and out of class. In regards to writing training, research studies have indicated that the number of writing assignments (from 6 to 24) does not make a difference in student learning. The middle-of-the-road approach holds to approximately 7-11 writing assignments during a semester.

Summary

The number of ways in which communication can be taught is legion. School resources, student characteristics, and instructor backgrounds are just a few of the many factors that influence instructional strategies. It has been said that "students don't care how much the teacher knows until they know how much a teacher cares." Thus, "extra-mile efforts" in devising teaching approaches that reach out and touch the student is the "bottom-line."

Teaching Methods and Techniques

Utilizing educational strategies to provide a philosophical description of a delivery system there are additional instructional methods and techniques that are useful in teaching business communication courses. Since effective communication goes hand in hand with effective human relations, the teacher should practice good human relations in the classroom. One of the best ways to do this is to make the class interesting, likely, and occasionally dramatic. There is no one set formula for doing this; instead, the teacher should use a variety of techniques and activities to motivate learning and secure interaction and understanding.

Methods and techniques which may be utilized are:

1. Lecture
   a. Useful when not overused
   b. Should be accompanied by meaningful class discussion
2. Group discussion/question-answer
   a. Encourage students to think
   b. Provide practical experience in speaking before a group.
3. Personalizing instruction/grade contracting
   a. Effective with grammar and punctuation units when students do not all have the same degree of knowledge

   - b. Feedback and positive reinforcement specifically tailored to each student's needs can be given

4. Worksheets/workbooks
   - a. Provide opportunity to work individually without being tested
   - b. May show troublesome areas before final evaluation
5. Role playing
   - a. Evaluate students' practical rather than theoretical approach to learning
   - b. Human relations, job interviewing, and impromptu speaking are some topics that lend well to simulation.
6. Speakers from the business community
   - a. Provide an excellent source for up-to-date information about office trends and requirements
   - b. Conduct mock interviews with business personnel to give students employment tips
   - c. On-site visits or cooperative experiences are "real".
7. Simulations either at school or in adjacent facilities.

Evaluation

Business communication can best be taught in a "businesslike setting." Thus, student performance should be measured, whenever possible, in terms of actual business standards. For example, a misspelled word or an unclear sentence should be evaluated by its effect on the person who would read the message.

The exact means of evaluation will differ with each teacher of business communication. However, the following elements should be included in any grading plan:

1. homework assignments
2. in-class assignments
3. exam grades
4. pre-and posttest results and achievement ratios
5. class participation

Regardless of the grading method used by the teacher, students should be given a clear picture of how they are to be evaluated. At the beginning of the course, they should be told (or may even help determine) the relative values of scores on each component of their grade. A system such as the recently developed behavioral objective approach or your own check-off chart or key to grading index gives the student an advanced understanding of the limits of acceptance. So crucial is this concept that it is the base of behaviorally developed courses and criterion tests.

Conclusion

Communication is a critical competency needed in business. Survival in business necessitates being able to speak, listen, read, write, and interpret nonverbal cues. Successful communication, high morale, and competent job performance go hand in hand. Further, the steady growth in organizational size, greater specialization of job structure and task, and greater use of communication systems promise to intensify the demands on the total communication skill of business person. Thus educators must accept the challenge in developing students' communication skills not only to cope with the communication demands of the 1980's, but also to *excell* in their job performance.

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*Indicates content area

SAMPLE COURSE SYLLABI

Course: Business Communication

This course is recommended for final year high school students and sophomore college students. College freshmen are encouraged to complete the first two semesters of Rhetoric or Basic English. Junior students may also wish to complete the course. Typically, 3 hours of credit may be earned. The class meets 3 days a week.

Objective

In a basic business communication course, instructors should teach students to effectively:

1. Write inquiry, pleasant, unpleasant, and persuasive business letters.
2. Write a resume and a letter of application.
3. Write a short report (5 or fewer pages).
4. Write an interoffice memorandum.
5. In the above types of writing, students should be taught to:
   a. Use proper grammar and punctuation and spell correctly.
   b. Use appropriate tone, style, language, organization, and format.
   c. Use clarity, conciseness, and word choice.
6. Dictate a memorandum or a letter.
7. Give an oral presentation to a large group (13-30 students), using proper audience analysis and sound delivery techniques.
8. Listen.
9. Understand the importance of nonverbal communication and interpret nonverbal cues.

Course Outline

Topic:	**No. of 50-minute Class Meetings**
1. Orientation	1
2. Student introductions	1
3. Diagnostic writing skills pretest	1
4. Communication process	1

5. Job search:	
a. Speaker from Placement Center or interviewer from a business	1
b. Roleplaying interviews	1
c. Resume writing	2
d. Application letters and thank-you letters	1
e. Peer evaluation of resumes and application letters	1
6. Listening and questioning techniques	2
7. Review of language writing skills	6
8. Writing principles	3
9. Letter writing:	
a. Inquiries	1
b. Adjustments and complaints	1
c. Pleasant messages	1
d. Unpleasant messages	1
e. Special letters (such as congratulations)	1
f. Peer evaluation of unpleasant or pleasant message	1
g. Persuasive messages	1
10. Dictation:	
a. Usefullness (speaker from a manager in business or from a dictation equipment vendor)	1
b. Dictating to mechanical device; word processing introduction	1
c. Dictating to secretary	1
11. Report writing:	
a. Memoranda	1
b. Report characteristics: short vs. long; direct vs. indirect order; personal vs. impersonal style	2
c. Organizing data research methods	1
d. Graphic aids	1
12. Nonverbal communication	2
13. Oral communication:	
a. Oral communication principles for small groups and for large group presentations	3
b. Oral presentations by each student (videotaped) (review of videotapes outside of class time)	3
14. Personal consultation on each student's communication abilities (with instructor during semester)	2
15. Examinations: midterm and final	2
TOTAL NUMBER OF CLASS MEETINGS	48

Should a need exist for students to use other styles and types of letters and short messages, the following could be used to supplement a basic communication and writing course.

1a. Employment requests and related messages	2-5
Permission to use a name as reference Recommendation letters Interview and thank you letters Accepting a position Declining a position Resigning from a position	
2a. Goodwill and human relationship related messages	1-3
Announcement-forms and letters Congratulation messages Thank you letters Introduction letters	
3a. Special written messages—non-letter form or style	1-3
Minutes of a meeting Agenda Writing memos	

Evaluation	**Percentage**
1. Assignments:	
—pleasant message	5
—unpleasant message	5
—inquiry	5

—persuasive message	5
—resume and application letter	10
—memorandum	5
—short report	10
—dictation	5
—oral presentation	10
2. Examinations:	
—midterm examination	15
—final examination	10
—writing skills posttest	10
3. Instructor evaluation	5
TOTAL	100

Teaching Aids

Listed below are several teaching aid ideas to assist in teaching the business communication course.

1. Videotape recorder and playback units
2. Overhead projector
3. Dictating equipment
4. Tape recorder
5. Sound-on-page equipment
6. Slide projector
7. Word processing equipment
8. Computer
9. Handouts
10. Chalkboard
11. Charts
12. 16mm film projector

Course: Business English and/or Business Writing Fundamentals

This course may be a high school course for which English credit may be earned. However, it is usually recommended for college sophomores and juniors.The class offers 3 hours of credit and meets 3 days a week.

Objective

To enable students to more effectively use the English language in written and oral communication.

Course Outline	Suggested Number of Classes
1. Dictionary; use	2*
a. Front matter and appendices	
b. Entries	
c. Labeling or usage	
d. Parts of speech	
e. Pronunciation	
f. Definitions	
2. Parts of speech	
a. Nouns	3
b. Pronouns	3
c. Verbs	4
d. Adjectives	1
e. Adverbs	1
f. Prepositions	1
g. Conjunctions	1
3. Capitalization	2
4. Hyphenation, syllabication, word division	2
5. Simple, compound, and complex sentences	2
6. Paragraphing	1
7. Expression of numbers	1
8. Proofreading	2

9. Punctuation	
a. Period	1
b. Comma	3
c. Semicolon	1
d. Colon	1
e. Question mark	½
f. Exclamation mark	½
g. Dash	⅓
h. Parentheses	⅓
i. Brackets	⅓
j. Omission of marks	½
k. Hyphen	½
l. Outlines	½
10. Spelling and vocabulary a. Spelling rules b. Accurate use of words c. Synonyms, antonyms, homonyms, and foreign words	3
11. Reference manual use (teaching idea: give exercises requiring students to look up things in reference manual and give answers and page references)	3
Total Suggested Number of Classes	41.5

Teaching Methods

- a. Lecture
- b. Work sheets
- c. Transparencies
- d. Slides
- e. Computer program with CRT screen and keyboard
- f. Video tape
- g. Tape cassettes

Evaluation	**Percentage**
a. Quizzes & homework	20
b. Tests (hour exams)	80
Total	100

*Extra class meetings are available for remedial work depending on individual class's needs and for testing.

Course: Report Writing and Communication

This course is recommended for junior and senior college students. Typically, 3 hours credit may be earned. The class meets 3 days a week.

Objective

In a report writing and communications course, instructors should teach students to effectively:

1. Write a proposal, informational report, problem-solving report, and summary memorandum. (Short reports—fewer than six pages are recommended).
2. Write a resume and letter of application.
3. In the above types of writing, students should be taught to:
   - a. Use proper grammar and punctuation and spell correctly.
   - b. Use appropriate tone, style, language, organization, and format, depending on differing situations.
   - c. Use clarity, conciseness, and word choice.
   - d. Use appropriate data-gathering techniques.
   - e. Use graphic aids.
4. Dictate a memorandum or letter.
5. Give an oral presentation to a small group (1-6), using proper audience analysis and sound delivery techniques.
6. Understand the importance of nonverbal communication and interpret nonverbal cues.
7. Review listening skills.

Course Outline

Topic:	No. of 50-minute Class Meetings
1. Orientation and student introductions	1
2. Diagnostic writing skills pretest	1
3. The communication process	2
4. Nonverbal communication	2
5. Listening	1
6. Resume writing	2
7. Letter of application and letter format	1
8. Letter writing psychology and organization of ideas	1
9. Business report writing:	
a. Classification of reports	1
b. Determining the problem and planning the research	1
c. Secondary research	1
d. Primary research	1
e. Organizing and interpreting the data	1
f. Order of reports: indirect vs. direct	1
g. Style for reports: personal vs. impersonal	1
h. Short and long reports and memoranda	1
i. Principles of long reports	1
j. Nonverbal communication aspects of reports	½
k. Documentation techniques	½
l. Visual aids for reports	1
m. Writing principles (conciseness; clarity; completeness; readability)	3
10. Review of language fundamentals	3
11. Specific type of writing:	
a. Proposal writing	1
b. Informational writing	1
c. Problem-solving writing	1
d. Summary writing	1
12. Dictation techniques (to secretary and to machine; word processing intro.)	3
13. Oral communication:	
a. Principles	1
b. Use of visual aids and room conditions	1
c. Interviewing techniques	1
d. Conducting small group meetings	1
e. Individual oral presentation with another 3-person group as audience in conference settings (videotape)	3
f. Review of videotape with individual by instructor	3
g. Discussion leader principles	1
14. Examinations: midterm and final	2
TOTAL NUMBER OF CLASS MEETINGS	42

Teaching Aids

Possible teaching aids are shown below:

1. Overhead projector
2. Videotape recorder
3. Dictating equipment
4. Sound-on page equipment
5. Slide projector
6. Word processing equipment
7. Computer
8. Tape recorder
9. 16mm film projector
10. Charts
11. Chalkboard
12. Handouts

Evaluation

	Percentage
1. Assignments:	
—resume & application letter	10
—proposal	10
—informational report	10
—problem-solving report	10
—summary memo (of oral report)	5
—dictation	5
—oral presentation	10
—discussion leader evaluation	5
2. Examinations:	
—midterm examination	10
—final examination	10
—writing skills posttest	10
3. Instructor evaluation	5
TOTAL	100

Course: Oral Communications in Business

This course is recommended for junior and senior college students. Normally the course offers 3 hours of credit and meets 3 days a week.

Objective

In an oral communication course, instructors should teach their students to effectively:

1. Conduct a mock interview.
2. Conduct an informal, small-group meeting.
3. Give an oral presentation to a small group (3-6 students) in an informal, conference-table setting.
4. Give an oral presentation to a large group (13-30 students) in a formal setting.
5. Dictate a memo and a letter.
6. Listen in small and large group situations.
7. Understand the importance of nonverbal communication and interpret nonverbal cues.

In conjunction with the objectives shown above which require speaking, the instructor should assist students in developing effective performance in the areas of message, delivery, and audience, as indicated below:

Speaker: general preparation and knowledge; energetic, enthusiastic attitude; self confidence; voice timbra, force, pitch, and rate; logical thought; proper use of notes; and overall delivery effectiveness.

Message: good organization; appropriate language; use of visual aids

Audience: interest and attention of audience; rapport; two-way communication; correct analysis of communication situation; and feedback.

Course Outline

Topic: (suggested sequence)	No. of 50-minute Class Meetings
1. Orientation	1
2. Student introductions	1
3. The communication process	1
4. Types of oral communicaton situations encountered in business	1
5. Listening	1
6. Nonverbal communication	1
7. Interviewing techniques discussed—active listening and questioning techniques	1
8. Guest speaker from business to discuss interviewing	1
9. Students role-play job interview from positions as employer and interviewee	1½

10.	Group discussion leader techniques; 3-person groups formed	1
11.	Personnel selection problem assignment discussed	1
12.	Three-person groups decide objectives and questions to ask in subsequent interviews with applicants	1
13.	Class members interview 3 applicants from another class for job applicant selection problem. Each member of 3-person group conducts one of the interviews. Videotaped	1
14.	Group meetings. Groups decide on top applicant from the three persons they interviewed	½
15.	Review videotapes with instructor and 3-person group.	3½
16.	Discuss and evaluate experiences of the interviews with entire class	½
17.	Guest speaker from business person who uses dictating equipment or from a dictation equipment vendor	1
18.	Instructor illustrates dictating techniques when using machine or secretary. Word processing also discussed	2
19.	Instructor explains problem-solving assignment and forms new groups of three students; instructor designates discussion leader	1
20.	Group meetings to select problem to be solved by groups. Students with same major should be put into same group as much as possible	1
21.	Midterm examination	1
22.	Oral presentation techniques for small and for large group presentations	2
23.	Review videotapes of two student presentations from a prior class. Students write brief evaluation of both speakers	1
24.	Audio-visual techniques	½
25.	Individual oral presentations assignment explained (business communication topic)	½
26.	Group meetings—analysis of data	1
27.	Other oral communication situation such as giving instructions to employees, giving orders, handling questions	1
28.	Group meetings—a summary handout is prepared for designated listeners of group's presentation	1
29.	Group meetings—visual aids are prepared for group presentation	1
30.	Group meetings—practice videotaping	1
31.	Group presentations are videotaped in front of small group (3-6 people) in conference-table setting. Questioning session conducted by group leader. Immediate feedback of videotape with instructor & student	10
32.	Individual oral presentation (on business communication topic assignment) to large group (13-30 students). Each speaker has 5 minutes after which he receives immediate written evaluation from listeners. Instructor reviews videotape with student alone	4
33.	Final examination	1
	TOTAL NUMBER OF CLASS MEETINGS	48

Teaching Aids

1. Videotape recorder
2. Dictating equipment
3. Overhead projector
4. Slide projector
5. 16mm film projector
6. Charts
7. Tape recorder
8. Handouts
9. Chalkboard

Evaluation	Percentage
1. Assignments:	
—interviewing assignment	10%
—listening (written summary of guest speakers and group presentations)	10
—dictation of one memo and one letter to job applicant	10
—oral presentation to small group	15
—group leader conducting skill	10
—oral presentation to large group	15
2. Examinations:	
—midterm examination	10
—final examination	15
3. Instructor evaluation	5
TOTAL	100%

Course: Technical Writing and Communications

This course is recommended for college sophomore or junior students. Typically, the course offers 3 hours of credit and meets 3 days a week.

Objective

Technical writing and communication courses relate directly to the writing of product or service-related messages and materials primarily for company use. Therefore, technical writing courses tend to adopt the format of the industrial arm they serve more than basic correspondence or general business communication messages. Twelve- to fifteen-week courses may include the following:

Specific Objectives

1. Write and speak messages that classify, instruct, describe, operate or analyze a mechanical process or technical product.
2. Compare technical writing and speaking differences from messages that do not contain formula or critical language components.
3. Identify appropriate product or service terms and include effective vocational and technical vocabulary.
4. Describe and discuss mechanisms and intricate processes through extended, yet precise and clear definitions, terms and explanations.
5. Use proper grammar, punctuation, language organization, and tone to meet the needs of the "special" message.
6. Use graphic diagrams, flow sheets, charts, photographs and other visuals to clarify and aid understanding of technical messages.
7. Write appropriate specification bids, proposals, or project identification grids in order to secure approval and funding for technical related jobs.
8. Write short-analytical or expediting progress reports using an effective problem-solving or reporting language style and report format.
9. Give an oral presentation to a small group (1-6 students) or business representatives, using proper audience analysis and sound delivery techniques.

Course Outline

Topic	Suggested No. of 50-Minute Class Meetings
1. Orientation	1
2. Introduction to technical composition	1
3. Diagnostic writing skills pretest	1
4. Communication process	
....oral technical messages	1
....writing technical messages	1
....technological media adaptations	1
5. Problem solving techniques and theory	1
....in-class writing and discussion	2

6. Definition writing and theory	1
....in-class experiencing	2
7. Logic and decision making theory	1
....in-class experiencing	2
8. Instructions and process theory	1
....in-class experiencing	1
9. Descriptions of mechanisms and prints	1
....in-class experiencing	2
10. Classification analysis	1
....in-class experiencing	2
11. Formal and informal report writing theory	1
....informative report writing	1
....examinational report writing	1
....analytical/problem-solving writing	2
12. Writing summaries, abstracts and specialized messages	1
....summaries in-class experience	1
....abstracts in-class experience	1
....specialized in-class experience	1
13. Use of graphic materials in diagrams, flow sheets, charts, photographs, etc.	2
14. Short analytical reports (1-2 pages) and other short documents of expediting, process, or critical writing (No long library research based reports used)	2
15. Small group interaction and group discussion	1
16. Video-taped interaction or short student presentation. (3-7 minutes)	4
17. Guest speakers or on-site tours	1
18. Mid-term and final examination as appropriate	2
19. Other specialized experiences as required by the technology and industry of the community	2-5
TOTAL NUMBER OF CLASS MEETINGS	(46-52)

Teaching Methods

Teaching aids and materials are suggested below:

1. Videotape recorder and playback units
2. Overhead projector
3. Tape recorder
4. Sound-on-page equipment
5. Slide projector
6. Word processing equipment
7. Computer
8. Handouts
9. Chalkboard
10. Charts
11. 16mm film projectors
12. Variable room or class facilities for large and small group instruction

Evaluation	**Percentage**
1. Assignments:	
in-class interpretative writing	2-5
in-class definition writing	2-5
in-class logic/inductive, deductive writing	2-5
in-class writing instructions	2-5
in-class descriptions or describing mechanisms	2-5
in-class case analysis	10
out-of-class short formal reports (1-2 pages)	10
out-of-class short informal report (1-2 pages)	10
2. Major Project analytical report	20
3. Examinations:	
Midterm examination	10
Final examination	15
4. Oral Presentation	5
	to 100

WORD PROCESSING

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WORD PROCESSING

OVERVIEW

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EMERGENCE AND ADOPTION OF WORD PROCESSING

EFFECTS OF WORD PROCESSING ON THE OFFICE STRUCTURE
  Career Paths for Word Processing Employees

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SUMMARY

ANNOTATED BIBLIOGRAPHY

WORD PROCESSING

Overview

Business today is highly dependent upon paper-based communications. The "paperless office" is not yet a reality. Estimations are that over 15 trillion pieces of paper circulate in U.S. business offices, and an additional million new pages are being added every minute of each working day.[1] The federal government alone produces more than one billion communications each year.[2] This communications barrage involves daily transactions that are valued at millions of dollars; therefore, managers must rely heavily on the effective use of business communication networks.

As the importance of business communications became apparent to managers, the parameters of this area have been expanded. The tasks related to business communications are often known as information processing, communications systems, or management information systems. Word processing is one component of the modern information network; it is currently one of the most widely discussed systems in business and in education. Other key components of an information network include data processing, records management, reprographics, micrographics, electronic mail, and forms of telecommunications. The interrelationships of information network components have changed the concepts of the Office of the Future, or the automated office, and these concepts make the "paperless office" a feasible alternative.

As word processing matures, evidence surfaces indicating that in the future more emphasis will be placed on the communication of information rather than just the processing of information. John Connell, founder and executive director of the Office Technology Research Group, states that:

> There are two things that go on in an office. We *process* information and we *communicate* information. Up to now, we have used technology to help in the processing of information. In the Office of the Future, we will be concerned with using technology to help in the communicating of information. Why? Because of the two activities, communicating is far more important. It is in communicating that one adds human intelligence to the information at hand. That is what managers and knowledge workers get paid for. They are presented with some information, they think about it, they add their ideas to it, an then they write a letter or call a meeting or do something else to communicate the results.[3]

The blending of the processing and communicating aspects of information handling will be receiving greater attention in the future. The role of word processing in the informational network will be discussed in this chapter.

Definition of Word Processing

When any new administrative system is introduced into the marketplace, terminology and definitions often become somewhat muddled. Data processing has been characterized by a new, evolving terminology; and now word processing is also faced with many new definitions and terms. At the present time, there is wide disparity among the answers to the question, "What is word processing?" Some definitions describe a total system encompassing both the typing function and the administrative support function found within an organization, while other descriptions are more narrow in scope. As word processing grows, the scope is changing from an approach that focuses primarily on increasing the secretarial productivity in the office to a mission which involves the improvement of productivity at all levels within the organization. However, the differences in definitions of word processing can often be traced to such variables as the size and type of the business organization, or to the date word processing was first introduced in the business.

Some of the more commonly used definitions of word processing and word processing systems include the following:

1. the integration of skilled people, systemized procedures, and office equipment into an organized and managed office system;
2. the combination of people, procedures, and equipment that transforms ideas into printed communications and helps facilitate the flow of related office work;[4] and
3. a combination of equipment and personnel working in an environment of job specialization and supervisory controls for the purpose of producing typed documents in a routinized, cost-effective manner.[5]

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[1] Anne H. Soukhanov, ed., *Webster's Medical Office Handbook* (Springfield, MA: G. & C. Merriam Company, 1979), p. 508.

[2] Matthew Marmor, "Automation of Correspondence Production and Control," *Government Data Systems,* VII (November/December, 1978), p. 20.

[3] John J. Connell, "Word Processing at the Crossroads" (paper presented at a luncheon meeting of the International Word Processing Association Syntopican VII, Chicago, IL, June 26, 1979).

[4] The Dartnell Corporation, *Dartnell's Glossary of Word Processing Terms* (Chicago: The Dartnell Corporation, 1977), p. 54.

[5] Ibid.

All of the contemporary definitions of word processing refer to the blending of people, procedures, and equipment in order to obtain the maximum benefits. Often maximum benefits of word processing are described by business in terms of decreasing costs while continuing the production of high-quality work in a minimum of time. Users of word processing have also discovered additional value in the expanded variety of work as well as the greater workload that can be handled by the flexibilty of word processing.

Unfortunately, during the early years of word processing, the illusion was often given that the only authentic method for implementing word processing was one which required installing large quantities of the newest magnetic media typewriters and dictation-transcription equipment. Such a misinterpretation concerning word processing tended to exclude many small and middle-sized businesses that were not in a position to make the drastic changes often encouraged by equipment manufacturers.

A degree of misinformation still exists regarding the role of equipment in word processing. Today, however, the employment of skilled personnel and the establishment of proper office procedures are generally regarded as the more essential elements for the successful implementation of word processing. Acceptance of word processing concepts seems to depend on how word processing has been defined and integrated within a firm. Unquestionably, the addition of carefully selected word processing equipment can improve productivity in an office if managed properly.

A recent report prepared for the U.S. Congress by the Comptroller General carries the title, "Federal Productivity Suffers Because Word Processing Is Not Well Managed." They reinforce in this report the importance of people and procedures when stating that

> key factor in the initial and continuing success of any word processing system is careful attention to personnel planning and management of the system...and that agencies should work closely with the personnel function to assure that human relations aspects of word processing are not ignored.

The report acknowledges that word processing systems can increase productivity and cite the experience of the Social Security Administration. In the first year of word processing operation, productivity in the Social Security Administration offices was increased 45 percent and is presently 69 percent higher than under the previous system of electric typewriters.[6]

Emergence and Adoption of Word Processing

The concept of word processing was first tried in Germany in the mid-1960s. Credit for the original idea is given to Ulrich Steinhilper, an office products manager, who visualized the potential of a new Magnetic Tape/Selectric Typewriter (MT/ST) introduced by IBM Corporation. He proved his theory that savings of time and money were possible if dictation could be transmitted through a central site where transcription would be produced on these new automatic MT/ST machines. The MT/ST typewriters were capable of creating error-free documents at a speed of 150 to 180 words a minute. This theory resulted in a process which became known as "textverabeitung" or text processing. The term "word processing" became popular in referring to the correspondence uses of this new process, and the term was appropriate for contrasting word processing with data processing, which was alphanumeric-oriented. Currently, word processing leaders are suggesting that the term "word processing" be changed to an expression that would better describe the broadened scope of this office area.

The development of computers enabled business to identify operating costs more efficiently than in the past. A decade ago the cost of operating the office function was about 20 to 30 percent of the total budget of an organization; today, many firms have discovered that their office costs have ballooned to nearly 50 percent of their operating budgets.[7] In a period when business organizations are straining to increase profits, such costs cannot be overlooked.

The business world is encountering another problem—companies are beginning to experience greater difficulty in employing qualified secretarial personnel. Little relief is expected for this problem during the next few years. Despite the lure of higher salaries, "the fact is, up to 60,000 new secretarial jobs will go unfilled this year...and by 1985 the secretarial shortfall could easily pass 250,000."[8]

Many business firms are reacting to these problems by actively searching for ways to lower the costs of the office function as well as to overcome the difficulty of obtaining competent secretarial support. Managers first turned to office equipment manufacturers to determine if technological developments could aid in lowering the costs. This strategy was useful several years before when the computer was used to increase the productivity in other functional areas of the organization. Thus, the stage was set for the emergence of word processing, which held the potential for reducing costs, accommodating increased work volume, and yielding high-quality work.

In practice, to fully realize the cost reduction opportunities, any organization is strongly advised to conduct a feasibility study to determine its present and projected workloads and ascertain those applications which can be appropriately served by word processing. Such a study can provide useful data needed to design an appropriate organizational pattern for implementing word processing as well as to provide guidance in determining personnel requirements. The governmental report to Congress cited earlier found that many of the problems encountered in governmental word processing installations were directly related to the agencies' having not conducted proper feasibility studies when initiating word processing. The report recommends that, in the future, detailed studies be made both prior to installing word processing and at regular post-installation reviews.[9]

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[6] *Report To The Congress of the United States by the Comptroller General,* United States General Accounting Office, #FGMSD-79-17, issued April 6, 1979.

[7] "The Office of the Future," *Business Week* (June 30, 1975), p. 49.

[8] "The Secretary Is Becoming An Endangered Species," *Forbes* (December 11, 1978), p. 61.

Few new concepts have been introduced and embraced so quickly by American businesses. Today, word processing is evident in thousands of U.S. business, education, and governmental offices and is continuing to rapidly spread throughout the world.

This rapid acceptance of word processing can be documented by observing the tremendous increase in membership in the International Word Processing Association, which is the largest professional organization of word processing employees. IWP membership is restricted to those persons actively involved in information processing, management, consulting, education, research, and marketing. Though originally founded in 1972 under the auspices of the Administrative Management Society, IWP became an independent organization in 1977. As of July, 1979, IWP has more than 7,500 members and the association continues to grow at a rate of more than 300 new members each month.[10] The membership of other word processing associations such as the Word Processing Society has also shown rapid increases in membership. Word processing associations have been formed in several states and local word processing organizations, or chapters of one of the larger organizations, are very active.

The development and marketing of word processing equipment has also multiplied at a dramatic pace. Today over 100 companies are actively involved in the manufacture of word processing equipment and supplies. The strength of this industry is revealed in a study released by Creative Strategies, Inc., a research and consulting firm, which confidently forecasts that over 792,000 word processing machines will be in operation by 1981.[11]

Word processing equipment has evolved from the original electric typewriter to magnetic tape/selectric typewriters, magnetic card, cassette, and disk media, standalone display-based units, models with communicating capabilities, shared-logic systems, and the use of time-sharing service. As the capabilities of word processing equipment have increased, the cost has been decreasing, which has made the acquisition of sophisticated word processing equipment even more attractive to the business community. Predictions suggest that "in terms of sales, text-editing equipment will grow at a compound annual rate exceeding 30 percent for the next five years,....,"[12] bringing 1983 revenues of word processing equipment to the $6 billion level.[13] Hence, these figures reflect the notion that word processing is and will continue to be an integral office system in the foreseeable future.

Effects of Word Processing on the Office Structure

Traditionally, a secretary performs a wide variety of activities in the office, such as handling the typing, maintaining the files, making travel arrangements, initiating and/or processing correspondence and reports, coordinating the receptionist-type duties, operating the telephone system, as well as managing many other tasks and responsibilities which are dependent upon the specific needs of the employer. Thus, the secretary must be highly capable of handling a variety of roles. Realistically, however, many secretaries are probably skilled in performing only two or three tasks and less than efficient in accomplishing the remaining tasks.

In many offices, a secretary works for only one employer, and the work station is physically located near that employer. The only supervision the secretary will receive will probably be that provided by the employer.

Three problems often exist with the one-to-one employer/secretary relationship. Paula Cecil points out that:

> First, the job is broadly defined and changes from day to day and from boss to boss, so that some secretaries don't know what is expected of them, and some bosses don't know what to expect from their secretaries.
>
> Second, there is no professional supervision of the secretaries, which results in costly time waste due to the workers waiting for tasks to perform, spending too much time making decisions, and doing the same job in different ways.
>
> Third, secretaries don't work as a team, pooling their efforts and sharing work in order to meet a common goal.[14]

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[9] *Report To The Congress of the United States by the Comptroller General,* pp. ii and iii.

[10] "Membership Statistics," *Viewpoint,* The Newsletter of the International Word Processing Association, VI (July, 1979), p. 1.

[11] "WP Typewriter Industry to Exceed 792,000 Installations by 1981," *Word Processing Report,* XIII (September 15, 1977), p. 1.

[12] "WP/DP Minicomputers to Equip Future Office," *Word Processing World,* V (October, 1978), pp. 6, 10.

[13] Robert S. Anderson, ed., "Estimated Worldwide Word Processing Shipments and Value," *Office Products Analyst,* December, 1978, p. 1.

[14] Paula B. Cecil, *Word Processing In The Modern Office* (Menlow Park, CA: Cummings Publishing Company, 1976), p. 168.

Other concerns often cited in discussions concerning this one-to-one employer/secretary relationship includes the recognition that career paths have not been established, and promotion is generally based on the success and promotion of the employer and not on the skills and abilities of the secretary. Also, the full professional talents of a secretary may not be utilized effectively for many reasons: the employer may not realize the responsiblity that the secretary is prepared and capable of accepting; the employer may not be willing to share the responsibility and authority necessary in the management of an office with a secretary; the employer may be inexperienced in supervising and evaluating secretarial personnel; and/or the qualifications of the secretary may not have been carefully matched with the secretarial needs of the office.

Word processing attempts to alleviate some of these concerns in the following ways:

1. All of the secretarial work is divided into two distinct functional areas: (1) typing functions, and (2) non-typing (administrative) functions. Figure 1 shows this division.

2. A secretary is employed either as a Correspondence Secretary, who will spend a high percentage of work time in typing activities, or as an Administrative Secretary, who is involved in such non-typing secretarial activities as indicated in Figure 1. (Other job titles are often used in describing these two positions.) This division of work allows a secretary to specialize and become highly skilled in performing related tasks, thus utilizing more effectively both time and money.

3. A secretary may be involved with the work for many managers rather than working for one individual only.

4. A secretary is directly supervised by professional word processing or administrative support managers or supervisors, who have determined acceptable work standards, created appropriate recordkeeping systems, determined priorities, and established effective procedures to meet the secretarial needs of the organization.

5. Work is distributed to the word processing employee(s) most capable of completing the work

TYPICAL SECRETARIAL FUNCTIONS

CORRESPONDENCE
(Typing Function)

Typing correspondence
Typing reports
Typing other documents
Formatting (arranging type elements on a page)
Proofreading
Collating
Transcribing
Recordkeeping
Filing storage media
Handling revisions
Maintaining daily records

ADMINISTRATIVE SUPPORT
(Non-typing Function)

Receiving office callers
Handling telephone calls
Processing mail
Managing filing systems
Conducting research and preparing materials for reports, etc.
Scheduling office calendar
Composing and dictating correspondence
Assisting executive with administrative work
Using calculating equipment
Completing miscellaneous errands
Maintaining supplies
Arranging for travel
Setting up meetings
Acting as liaison with word processing
Photocopying

Figure 1
Division of Typical Secretarial Functions for Word Processing

properly. For example, a complex statistical report that is confidential would probably be handled by a highly skilled Correspondence Secretary; whereas, a less complicated job, such as a routine letter, would be typed by a less skilled Correspondence Secretary.

A modification of these two distinct secretarial roles is one in which some secretaries have the abilities to serve in the function most needed by a user at a given time. One time the secretary may be serving in an administrative role, but can switch to the Correspondence role if work needs to be processed in that area. This flexibility can be of great benefit in providing the secretarial support needed in an organization and can be a "back-up" resource during peak workloads.

Because of the changing role of the secretary, the organizational structure of the office is usually modified, particularly in firms employing several secretaries. However, recognition must be given to the fact that even though word processing may be implemented within an organization, in practice, top management executives sometimes retain the privilege of continuing to employ a private secretary who does work only for them and are only indirectly involved with word processing.

Organizational Patterns. In order to justify the expenditure of money for word processing equipment in the early years, the organizational structure most often suggested to businesses by equipment manufacturing vendors was the establishment of a centralized location to handle all word processing typing work. This pattern tended to have the potential of being the most cost-effective method of implementation. With the addition of a professional supervisor, the pattern could result in more effective use of secretarial personnel, workloads being more efficiently distributed, standardized procedures being adopted for handling work (thus cutting down on some decision-making time), and maximizing the use of the automated word processing equipment.

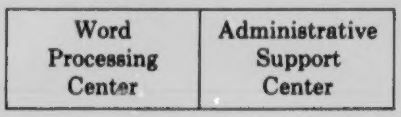
As more and varying kinds of businesses installed word processing, problems were experienced in utilizing the centralized approach in some organizations. These problems took many forms. At one extreme, management sometimes would not accept nor cooperate by sending their work to the centralized Word Processing Center; another extreme reaction was reflected by managers immediately sending immense amounts of work to the Center where secretaries were treated, and expected to act, like robots in getting the work processed. Some of the Centers were being asked to handle unique, "custom" documents that would have been more appropriately completed elsewhere in the organization. Similar problems occurred with the administrative support system, which often had not been carefully designed.

Experience and further study suggested that the work of many organizations would be more effectively accommodated in a decentralized setting. Managers tended to be more enthusiastic about a decentralized organizational pattern because accessibility and control possibilities were appealing to them. Also, the cost of word processing equipment was decreasing, thus making decentralization more feasible and attractive. Decentralized approaches frequently observed today include: the establishment of satellite locations (a station, terminal, or other unit of equipment connected to, but at some distance from, a centralized data processing system);[15] arrangements in the form of mini-word processing center(s) also referred to as clusters, zones, or work group arrangements (which are considered to be a smaller unit of personnel and equipment engaged in a specific function(s)—may consist of a department, or a section within a department, but it is considered to be an entity unto itself);[16] individual work stations, and/or any combination thereof designed to fit the needs of the organization.

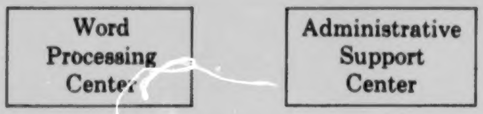
The criteria used for the choice of an organizational pattern should be based on user needs as they relate to: (1) level of productivity required, (2) responsiveness needed in getting work done, (3) convenience and accessibility of the word processing and/or administrative support, (4) quality of work necessary, and (5) the job satisfaction of office employees.

Some of the organizational patterns adopted by businesses and governmental agencies include:

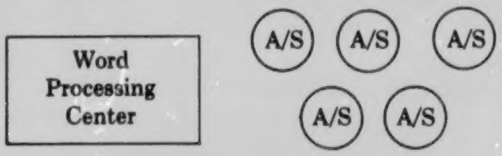
Centralized—word processing typing function placed in one location; administrative support placed in a contiguous location.



Split Centralization—each function centralized within itself; however, each may be located in completely different parts of a building, floor, etc.



Centralized Word Processing/Decentralized Administrative Support—the typing function is centralized in one location, while the administrative support personnel are decentralized and usually placed near the users they support.



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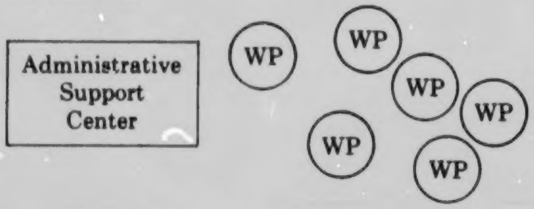
[15] Dartnell, op. cit., p. 39.

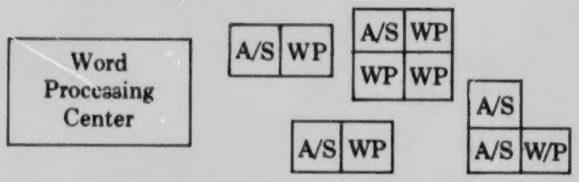
[16] Ibid., p. 54.

Centralized Administrative Support/Decentralized Word Processing—this organizational pattern places all administrative support personnel in one location, while the word processing function is decentralized in a satellite-type location placed closer to the user. This pattern might work effectively in a organization in which the typing is quite technical and considerable interaction is needed between the Correspondence Secretary and the user.

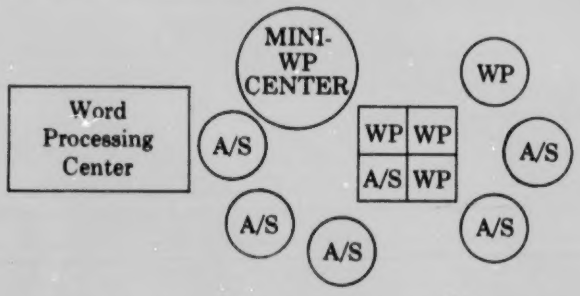


Other Hybrid Patterns which utilize various combinations of personnel and equipment include:

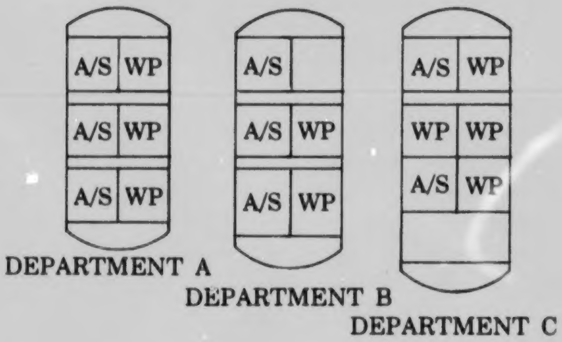
A pattern where a centralized word processing center may have been developed to handle the major amount of typing within the organization. In addition, satellite units (of either function) may have been placed near user departments as required. A work group or cluster arrangement allows any combination and number of Correspondence and Administrative Secretaries to work together.



Another organizational pattern combines a large centralized center (used primarily for correspondence and short document preparation) with a mini-center (which may only accept certain kinds of work, such as documents 5 or more pages in length or specialized forms) along with a work cluster and individual work stations located close to the users.



The secretarial support needs of some organizations can be best met on a departmentalized basis which still allows for specialization of effort. In the following pattern, work clusters composed of administrative secretaries and correspondence secretaries would assist particular areas within a department. Back-up could be provided through reassignments.



Though many firms continue to utilize word processing in a centralized setting, an apparent trend seems to be toward decentralization. The flexibility of word processing and the relative ease of changing from one organizational pattern to another when needed has been appreciated by business.

Career Paths for Word Processing Employees. Word processing has expanded the job and career opportunities for secretaries. Not only has word processing resulted in new office jobs, but the opportunity for upward career mobility for office employees has also increased.

Theoretically, the implementation of word processing within a firm involves the determination and establishment of defined career paths through which word processing personnel can advance. Unfortunately, this concept has too often been ignored; yet, personnel managers have long recognized the merits of an identified path for career advancement in other areas. Hopefully, the benefits of establishing career paths for word processing personnel will be recognized and more widely practiced in the future.

A more positive view shows that many companies have taken steps to establish career paths in conjunction with determining job titles and descriptions for word processing personnel. Often, between four and eight job classifications are established for the Correspondence Word Processing personnel and two to four categories adopted for Administrative Support personnel. The actual number of classifications is usually dependent upon such factors as previous personnel procedures, the size of the firm, and the extent of word processing implementation. The career path "ladder" with titles and job descriptions, as shown beginning on page 11, is published by the International Word Processing Association as a guide in establishing word processing within a business organization.

As an employee progresses upward, each new position would require additional skills and knowledges to perform effectively. Each ascending step would suggest the addition of more responsibility, authority, and salary culminating in a managerial position. A defined career ladder usually results in adding one or more supervisory levels to the secretarial profession and provides an opportunity for many capable secretaries to enter the ranks of management.

No longer must the career advancement of a secretary be totally dependent upon the promotion and success of the secretary's "boss." A career path provides a secretary the opportunity to be promoted on the basis of merit.

Word Processing Career Path, Job Titles, and Job Descriptions[17]

Word Processing Trainee

Entry level position for those having 0-12 months word processing experience. Must have adequate typing skills, good knowledge of grammar, punctuation, spelling and formating, the ability to use dictionaries, handbooks and other reference materials, and be oriented toward teamwork and the use of machines. A Trainee's functions include routine transcription and manipulation of text from various types of source information (dictation, handwritten, etc.). Maintains own production records, and may be required to proofread own work.

Word Processing Operator

The next level up from WP Trainee for those having 6-24 months word processing experience. In addition to having all the qualifications and functions of a Word Processing Trainee, a Word Processing Operator handles special documents, meets established quality standards, uses all of a machine's text editing functions and is familiar with department terminology and company practices.

(Other titles for this position include: Correspondence/ing Secretary; Document Specialist; Magnetic Keyboard Specialist; Power Typist; Management Support Specialist; Word Processor; etc.)

Word Processing Specialist I

A Word Processing Operator with a minimum of 18 months experience who can format, produce and revise complicated documents, such as lengthy technical and statistical reports, from complex source information, including the retrieval of text and data from electronic files. Exercises independent action when interpreting instructions to produce a quality document, understands proofreader marks, and assumes full responsibility for document accuracy and completeness. Has a thorough knowledge of Center procedures and maintenance of records. May operate word processing equipment in the telecommunications mode. (See Word Processing Operator for additional titles used.)

Word Processing Specialist II/ Assistant Supervisor

A person at this level exercises all of the competencies of Word Processing Specialist I and may act as Assistant Supervisor. A Word Processing Specialist II is able to operate all the information processing functions within the installation. Responsibilities include coordinating and assigning work, analyzing requirements for specific projects, communicating with users, compiling production statistics and recommending changes in Center procedures. May also assist in training personnel. (See Word Processing Operator for additional titles used.)

Phototypesetting Specialist

A Word Processing Operator who enters special codes while keyboarding and revising text that is to be output on a photocomposition system. Has knowledge of points, picas, typefaces, leading and other aspects of typesetting and printing.

(Other titles for this position include: Reprographics Specialist; Reprographics Operator; Phototypesetting Operator; Graphics Processor; etc.)

Word Processing Trainer

Someone with a minimum of 24 months experience operating word processing systems who spends the majority of time training new Operators. May also be responsible for instructing users in dictation methods and other procedures to

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[17] International Word Processing Association, *Job Titles and Descriptions of Word Processing Personnel* (Willow Grove, PA: International Word Processing Association, 1979).

	insure maximum utilization of a Word Processing Center. Should make recommendations to management with regards to new equipment purchases from the standpoint of ease of use.
Proofreader	Proofreads typed copy for text content, spelling, punctuation, grammar and typographical errors. May be responsible for setting grammar and format standards, guidance and/or training of secretaries and users.
Word Processing Supervisor	With all the competencies of a Word Processing Specialist II, a Supervisor is responsible for the operation of a Center (or section within a large Center). Schedules and coordinates work flow, assists word processing personnel in document production and in establishing and maintaining quality standards. Also analyzes production data and procedures, identifies potential improvements and may be responible partially for budgets and equipment recommendations. Reports to Word Processing Manager. (Other titles for this position include: Secretarial Supervisor; Office Supervisor; Supervisor of Correspondence Center; etc.)
Word Processing Manager	Responsible for the overall operation of a Word Processing Center, including the guidance of Supervisors, personnel administration, staff requirements, user liaison, and evaluation, design and implementation of future word processsing systems. Also is responsible for budgets, overall production reports, and coordination of services with administrative support. May also manage the operation of photocopying, printing, mailing or graphics services. In larger organizations, the Word Processing Manager reports to Director of Secretarial Support Systems. (Other titles for this position include: Coordinator, Word Processing; Supervisor, Document Production; Manager, Correspondence Center; Manager, Communications; Manager Information Services; Manager, Office Systems; etc.)

Administrative Support Career Path, Job Titles, and Job Descriptions[11]

Administrative Secretary	Someone who works for a group of principals (users) as part of a team under the direction of an Administrative Support Supervisor or Manager. Responsibilities include the support functions such as filing, photocopying, maintaining calendars, records and lists, and providing special secretarial services, etc. (Other titles for this position include: Administrative Assistant; Administrative Support Specialist; Executive Assitant; Management Support Specialist; Management Support Secretary; etc.)
Senior Administrative Secretary	Has a record of exceptional performance. At times may act as Assistant to Supervisor of an administrative team, and is qualified to compose and edit documents for principals (users), provide research support, and perform other para-professional duties. Handles special projects and is fully aware of company standards and practices. (See Administrative Secretary for additional titles used.)
Administrative Support Supervisor	May have the responsibilities of Senior Administrative Secretary in addition to scheduling and administering work flow to a team of Administrative Secretaries. Responsbile for liaison with and training of users who benefit from administrative support. Evaluates staffing requirements, prepared management reports, recommends new methods of handling Administrative Secretaries. Reports to Administrative Support Manger.
Administrative Support Manager	Has full responsibility for developing, maintaining and evaluating all service structures under administrative support within an organization, such as filing, telephone, mail and paraprofessional support. Monitors the success of the administrative support group and is familiar with the company's goals and objectives. Works closely with the Word Process-

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[11] Ibid.

	ing Manager to insure cooperation of the two functions. May manage other major administrative duties such as records and retention, microfilm, print shop, purchasing, etc. Reports to Director of Secretarial Support Systems (in large organizations). (Other titles for this position include: Administrative Coordinator; Manager, Administrative Services; Office Manager; Supervisor, Secretarial Services; etc.)
Staff Analyst	Responsible for consulting and assisting Word Processing and Administrative Support Supervisors and Managers. Conducts studies, reviews operations, and determines and recommends appropriate staffing, procedures and equipment. Reports to Director of Secretarial Support Systems or Word Processing Manager or Administrative Support Manager.
Director of Secretarial Support Systems	May be Vice President or Assistant to Vice President in some organizations. Has total responsibility for all aspects of an organization's office system, including word processing, administrative support, and other information processing. Insures the collaboration of all support functions. Reports to a chief executive officer. (Other titles for this position include: Manager/Director, Office Systems; Manager/Director, Information Services; Manager, Information Systems; Manager, Communication Services; etc.)

Other career opportunities available for knowledgeable word processing personnel include Marketing and/or Sales Support Representatives for word processing and data processing equipment manufacturers, Systems Analysts, In-House Office Education Directors, Sales or Training Representatives of word processing software-oriented companies, publishers, and other related occupations.

The Use of Automated Word Processing Equipment

Since the inception of the first automated typewriter, the term "word processing" has often been used as a buzzword or a synonym to describe changes in office equipment. Though this usage is not correct, it does continue to prevail. Much of this automated equipment has been informally dubbed as "word processors." Amy Wohl, Word Processing Editor for *Datapro*, divides word processors and/or word processing systems into four categories, each having specific characteristics and uses.

1. Mechanical standalone word processors—this equipment is "blind" (meaning without a video display) and includes all types of less sophisticated, less expensive products for use in automated correspondence, short document revision, and other relatively uncomplicated applications.
2. Display standalone word processors—these word processors are equipped with a video display (usually gas plasma or cathode ray tube) to permit the Word Processing Operator to see the text as it is entered or edited. These systems often employ diskette (floppy disk) media, and may offer sophisticated routines to automate pagination, hyphenation, and global changes.
3. Shared logic word processing systems and/or distributed logic systems—these systems have some intelligence at the individual stations but allow several word processing stations to share computer power, storage, and such peripherals as printers. They can also interface for communications, photocomposition, and optical character recognition scanners (OCRs).
4. Time-shared services—these services allow a user with a terminal or communicating word processor to access the power of the time-shared service's computer, which is typically a large-size mainframe. Users are billed only for the time they actually use.[19]

When presented with a rather extensive array of automated office machines, users are frequently confused over what equipment to acquire. It is very important to carefully match the application needs of the user with product features as each of the products has been developed to fit a particular niche in the market. Future expansion needs must also be considered to insure that the equipment can interface with new models or with peripheral equipment. Other factors to consider when selecting word processing equipment are cost, service and repair, systems support by the manufacturer, training, appearance and ease of operation, standardization of equipment, the effect of obsolescence, and the reputation of the manufacturer. Overall, a user should choose a system that has the flexibility to meet the ever-changing needs of a business.

A trend toward the greater use of video display units is expected in the next few years along with a move to faster printers, word processors with larger memory capacity and with random access capability, more installations of optical character recognition scanners, and increasing numbers of users employing the communicating features on word processing equipment for the transmittal of information.[20]

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[19] Amy D. Wohl, "Reporting the Equipment Explosion," *Words, the Journal of the International Word Processing Association*, Summer, 1977.

The rapidity of equipment changes taking place in offices is indicated in a report by Business Communications Company, a research firm located in Stamford, Connecticut. According to figures compiled and projected in this report, "The sale of text-editing equipment in the word processing environment is not only supplementing regular typing tasks, but replacing them."[21] The research firm sees the growth of sales for more sophisticated text-editing equipment coinciding with a decline of sales for regular electric typewriters. In 1979, according to this report, the sales of regular electric typewriters accounted for 55 percent of the total sales of typing and word processing equipment; in 1984, this percentage is expected to have decreased to 31 percent of the total sales in that year; and by 1989, the sale of electric typewriters is predicted to further decline and will hold only 17 percent of the sales market.[22]

Dictation equipment can serve an integral function within word processing. Although not all word processing installations include the transmittal and transcription of machine dictation, studies show that considerable time can be saved by the use of dictation equipment. Advantages often cited include: 24 hour-a-day availability to dictate, equipment available to be used anywhere and not restricted to the office location, elimination of dependence on a second person (secretary), dictation at maximum speed, dictation can be transcribed by more than one person, and dictation never grows "cold."

Though obvious benefits can be presented, significant resistance to dictation equipment by managers has been experienced. Many managers prefer to dictate directly to a secretary (and enjoy the special status that is implied and recognized), or they would rather write their ideas in longhand. Both methods consume more time than does the use of dictation equipment—and time has become the greatest resource of today's managers in the fast-paced business world. As pointed out in a supplementary publication distributed by *Fortune,*

> ...as more convenient dictating equipment becomes available, and use of word processing equipment continues to place a premium on efficient document generation, more and more companies are going to require dictation for generating routine correspondence.[23]

The capabilities and quality of sound reproduction of dictation equipment continues to improve. Available options range from handy pocket-sized portable units through desk-top systems, centralized endless-loop equipment, and parallel cassette and tank configurations. Many of the centralized systems have sophisticated ways to access priority dictation; control units are available to assist in the monitoring of dictation; and many systems offer easy accessibility to a user from any office telephone or outside telephone day or night.

The use of machine dictation is dependent upon the extent company policy expects users to utilize their time and the time of secretarial support personnel. Many word processing centers include a unit on teaching dictation skills to users as a part of their training program.

The Future of Word Processing

People are generally on dangerous footing when they attempt to convert their crystal-gazing into predictions for the future, and this certainly applies when forecasting the future of word processing. However, here is a glimpse at what the 1980's will probably hold for word processing. This glimpse represents the best judgment of active office administrators in business as well as manufacturers of office equipment.

1. Most administrators seem to believe that word processing will enjoy a role of strength in the future and will be recognized as being even more necessary to management than is presently the case. A greater realization will be evident that word processing and other related systems have the potential to be increasingly effective in helping management meet objectives and produce the information needed to make the fast-paced decisions required in business today.[24]

2. Much more emphasis will be placed on the development of a total office information system of which word processing is one element. Richard Perry, Manager of Word Processing, Blue Cross of Wisconsin, states that "The office has to be a total information system, merging in part, word processing, data processing, reproduction services, graphics, etc."[25]

Thus a high priority during the 1980s will be the integration of the various components of an office information system. Even though "most offices aren't ready for such complex systems that completely integrate text, voice, images, and data..., they are ready and are using one or more elements that will lead to such a system eventually," according to Donald Vadnais of 3M Company.[26]

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[20] Ibid.

[21] "Sales of Text-Editing Machines on Rise While Electric Typewriter Market Falls," Word Processing Report, XXVII (September 1, 1979), p. 1.

[22] Ibid.

[23] Cited from "Information Processing and The Office of Tomorrow," a White Paper to Management prepared by the International Data Corporation and published as a supplementary publication by *Fortune,* 1979.

[24] "WP Heads Towards Integrated Information Systems," *Modern Office Procedures,* January, 1979, p. 105.

[25] Ibid.

3. A high degree of integration and compatibility among word processing and other business equipment will exist. Vadnais asserts that:

> We're looking at an environment in which almost all pieces of business equipment will be communications-oriented. Users as well as manufacturers can't look seriously at any development that will not fit into some integrated system in the future....[27]

4. The integration of word processing and data processing is one of the first challenges in the development of an office information processing system. This merger is presently receiving much attention in business organizations. Connell reinforces this idea when he declares that:

> The big change that is taking place in the office is the telecommunications interconnection of heretofore separate technologies (i.e., the technology of word processing and the technology of data processing)[28]

Minicomputer systems equipment and greater word processing software will play and integral role in this integration. Charles Farrell of Wang Laboratories, a word processing equipment manufacturer, states that this integration will be dependent on "greater automation in method of operation further pricing reductions, and greater human engineering to make the concept feasible for the general marketplace."[29]

5. As a result of the expected merger of data processing and word processing, speculation over whether data processing personnel or word processing personnel will be in control of this office information processing system continues to intrigue many professionals. Richard Perry points out that "With the forward movement of word processing, it is quite possible that word processing will take the lead in establishing corporate-wide total information systems.[30] On the other hand, John Connell suggests that word processing will likely be merged into data processing because "data processing is the more mature of the two, has more economical and political clout in most companies, and is not about to share its well-accepted role as the premier office technology."[31]

6. Research conducted by Creative Strategies International, a consulting firm specializing in technology-based industries, predicts that "evolution, not revolution, will characterize the development of office equipment" in the next few years.[32] This study concludes that "the possibility is slim that new types of equipment will be developed over the next decade which could radically change office organization or functions."[33] New applications and more sophisticated capabilities will undoubtedly continue to appear; however, most authorities agree that the basic equipment is not expected to change nearly as rapidly as was true in the 1970s.

Other conclusions based on the findings of this study by Creative Strategies International are that:

(a) though many of the business machines will offer communications capability, only a small fraction will actually be used in a communication mode before 1985;

(b) most of the successful equipment manufacturers will be concentrating on producing modular, upgradable equipment with compatible media;

(c) office automation will include greater use of personal computers in the office; and

(d) the primary focus of office automation during the next five years will be on stand-alone equipment. Despite the speculation that integrated office equipment will automate several of the more common requirements of an office, few of these products will be appearing until 1982 or later.[34] This may be due, in part, to the acquisition of word processing equipment by many small and medium-sized business organizations whose needs may be more limited presently.

7. Though the acquisition of word processing equipment which can perform two or more functions may not be rapid, a visit to any word processing equipment show clearly demonstrates that future models will be addressing the integration of functions within one piece of equipment. For example, copy machines can now not only make copies on two sides, use various sizes of plain paper, and accommodate color, but also can "communicate" copies to a distant city, thus merging a copy machine with facsimile equipment.

Another merging of functions is expected whereby every keyboard will have the capability to communicate with other nearby or distant terminals and/or computers. These keyboard terminals will probably resemble an electric typewriter and will be located on the desks of most office workers. Not only can a document be typed, but the same equipment can be used to transmit the document to another location—thus, electronic mail becomes a reality.

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[26] Ibid., pp. 105, 108.

[27] Ibid.

[28] Connell, op. cit.

[29] "WP Heads Towards Integrated Information Systems," *Modern Office Procedures*, January, 1979.

[30] Ibid.

[31] Connell, op. cit.

[32] "...Tomorrow's Office Equipment," *Modern Office Procedures*, January, 1979, p. 66.

[33] Ibid.

[34] Ibid.

8. In the more immediate future, many organizations will be incorporating word processing equipment with Optical Character Recognition (OCR) capabilities. This will allow work typed on a standard office typewriter to be recorded on magnetic media without keyboarding the material a second time. Though this equipment is presently available, future OCR scanners will be more flexible and able to recognize a wider variety of typewritten input than is currently possible.

9. Expectations are that the cost of word processing equipment will continue to decrease. This is due in part to the heavy competition existing in the electronic business equipment industry as well as the use of more advanced and cheaper technology by manufacturers, such as the use of "bubble" memory. "By the mid-1980s, bubble memory modules are expected to provide about one-million bits of on-line data storage at a cost perhaps as low as ten millicents (10/100 cents) per bit."[35] This low cost will lead to the feasibility of processing many new applicatons.

10. Top management will concentrate more personal effort in attempting to improve productivity and efficiency in the office; and management will be more involved in implementing "cost-cutting" procedures. Because of this, more effort will probably be expended by managers to become familiar with electronic equipment as well as giving increased attention to the effective utilization of such equipment in their own work. Automated display systems which are on-line to a computer with a data base will become a tool commonly used by managers. Such equipment will provide direct access to records, will allow manipulation of data to create needed reports, as well as have the capability to provide a paper copy if desired by the manager.

11. Equipment vendors will be developing products that will be designed to assist in the administrative function such as automating the handling of tickler files or scheduling a manager's calendar. Aids to help the administrative area have not been nearly as well developed as has the typing function, so increased effort will be expended in this area by many companies.

12. Technology will continue to provide means to assist supervisors in managing a word processing center(s). Microprocessors are already capable of providing supervisors with ways to instantly locate the status of work in process, measure productivity, etc., which are helpful in keeping work flowing. As additional supervisory and management needs are assessed, manufacturers will be extending the capabilities of business equipment to meet these new and ever-changing requirements.

13. The trend toward decentralization of word processing in the organizational pattern of users will probably continue as the price of equipment decreases. No longer does the capital expenditure on equipment dictate that word processing should be centralized. Indeed, it will be increasingly feasible to automate at a much smaller work-group level involving the use of sophisticated, intelligent stand-alone equipment such as dictation machines, small business computers, word processing typewriters, convenience copiers, and draft-quality printers.

14. Mention must be made about the increasingly popularity and sales boom of home computers. This equipment is coming on the market rapidly, and the low cost, ease of operation, and the software application potential are tempting consumers. As more and more people purchase and become adept in operating this equipment, expectations are that the experience gleaned from using these home computers will have a "carry-over" effect in business organizations. No longer will fear of electronic equipment inhibit users, and many managers and other office employees will become more personally involved in utilizing word processing equipment as an information-processing tool.

15. More corporations will encourage their word processing employees to maintain offices in their homes. With the increased usage of communicating terminals, commuting time and expensive office space can be saved. Work can be done and transmitted day or night. The Continental Bank in Chicago is currently running a pilot program in which word processsing employees work at home with equipment supplied by the bank which appears to be working satisfactorily.[36]

16. The establishment of word processing home/community typing service bureaus will increase. The use of communicating terminals will allow this "off the premises" approach to handling overload work which can then be transmitted to the company where the printing and distribution will be handled.[37] The "communicating" capabilities via telephone lines and portability of some word processing equipment allows a user to "dial in" to another piece of word processing equipment and/or a computer located at the main office and the information keyboarded is immediately transmitted for storage, editing, and/or printing. Dictation equipment is already being utilized in a similar fashion.

17. Managers who are already enthusiastically acclaiming the capabilities of word processing equipment will begin installing and using the equipment in their homes. An added benefit of this practice avoids the usual interruptions inherent in most offices and allows an executive to conduct work at night or on weekends.

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[35] "Bubble Memory: Memo, A News Digest for Managers," *Administrative Management*

[36] "...Tomorrow's Office Equipment," *Modern Office Procedures*, January, 1979, p. 66.

[37] Ann Walshe Willoughby, "W. P. by Moonlight," *Word Processing World*, August, 1979, p. 13.

18. Attention will continue to focus on making office workers more productive. While other functional areas have been partially successful in reaching greater productivity levels, the increase of productivity of office employees has only been about 4 percent each year. As feasible, companies will be spending more money on equipment to automate the office.

Why is this? "The most common answer is that office workers are inefficient;" however, John Connell believes that "the problem is not with the office worker—the problem is with the office workload."[38] He points out that not only does government impose a tremendous paperwork burden but also more public and private groups are demanding information. Meeting these requests not only consumes large amounts of the time of employees but is very disruptive to most office systems. He concludes that "any increases in productivity must first overcome the negative impact of a constantly increasing workload before any great gains can hope to be accomplished.[39]

The exact time table for these expectations is unknown. Much will depend upon the "health" of the economic system in the U.S., but most knowledgeable authorities share an optimistic view of the future growth of word processing in the 1980's.

Curricular Concerns

When discussing word processing, business teachers commonly raise questions related to these issues: (1) the types of students who would benefit from word processing instruction; (2) the instructional objectives for word processing programs and the related competencies, job responsibilities, personal characteristics and the aptitudes and attitudes needed for word processing jobs; (3) the essential components of a word processing curriculum; (4) the educational levels appropriate for teaching word processing; (5) the role of equipment in the teaching of word processing; and (6) the implementation of word processing in the business curriculum. Each of these six areas of concerns are discussed below in more detail.

Potential Students

All students who will be entering an office occupation, either immediately after high school graduation or at a later time, can benefit from instruction in word processing. For these students, the concepts, skills, and career-related information presented in a word processing curriculum will help them cope with the continuous changes occurring in the business office today. Similarly, students enrolled in cooperative office education work programs would gain from word processing instruction.

In addition, students in other business subjects should be made aware of the potential of word processing and its effects on related fields. For example, students enrolled in typewriting, shorthand, office procedures, business communications, accounting, and data processing courses should become aware of current practices in offices. These students need to know how word processing can facilitate the efficient processing and communicating of information—an area of increasing concern for most businesses. Students who acquire word processing competencies while they major in one of these related areas can increase their employment potential, both on a part-time basis while they complete their college degree and in full-time employment after graduation.

Special-needs students, whose education is of increasing concern throughout the profession, can also benefit from word processing instruction. Special-needs students might include potential dropouts, unemployed students, welfare recipients needing job skills, older students returning to the job market, and any other group needing to develop a saleable skill. Other special-needs groups identified by Phillips include unemployed young people, blacks, women, Indians, and criminal offenders.[40] Often these individuals have developed few job skills, possess gaps in their educational preparation, have many personal problems and conflicts, demonstrate ineffective work habits, and have shown few signs of being motivated.[41] CETA (Comprehensive Educational Training Act) programs are attempting to alleviate such problems. Word processing education can be an important adjunct to this saleable skills training. Many schools have developed courses and instructional materials designed to encourage these students to develop the competencies needed in word processing, an area in which skilled employees are in great demand. Some of these classes consist exclusively of persons with special needs; in others, special needs persons are integrated with all other students.

Another group of students that can be well-served by word processing instruction are physically handicapped students. Articles are appearing regularly in word processing periodicals describing the effectiveness with which handicapped people handle the work commonly done in word processing centers. For example, blind employees have proven especially valuable in word processing facilities that accommodate the use of transcription equipment. Hearing-impaired word processing employees have also been quite capable of producing quality work. Equipment manufacturers have modified some word processing equipment to facilitate its use by employees with such physical handicaps; these manufacturers are continuing their efforts in this direction. Just as teachers of typewriting have successfully used special techniques and materials for teaching students with a finger(s) missing or students with only one hand, office educators today are designing word processing programs for physically handicapped students to develop those skills needed to be successful in a word processing environment.

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[38] Ibid.

[39] "Office Workload: Memo, A News Digest for Managers," *Administrative Management*, August, 1979, p. 13.

[40] Charles W. Phillips, "Diversity of Special Groups: Description and Needs." *In Vocational Education for Special Groups*, Edited by James E. Wall, (Washington, D.C.: American Vocational Association, 1976), p. 27.

[41] Ibid.

Instructional Objectives

The instructional objectives for a word processing curriculum are designed to prepare students with the competencies, personal characteristics, and aptitudes needed for today's business office. They encompass four general areas: (1) word processing concepts; (2) equipment operation; (3) supervisory and management skills; and (4) systems analysis and design concepts. The objectives outlined below are based primarily on competencies identified by the authors of the *Illinois Word Processing Curriculum Guide,* published by the Illinois State Board of Education.[12] This curriculum guide is available at a small cost from the Publications Clearing House, Western Illinois University, 47 Horrahan Hall, Macomb, IL 61455.

Word Processing Concepts

The student should be able to:

1. Describe what word processing involves, why organizations are adopting word processing, and what effects word processing may have on office employees and the office environment.
2. Characterize the technological aspects of the "office of the future" and analyze and explain how such technology may affect future office employees.
3. Recognize the relationship of word processing to the total information systems of the office.
4. Identify various organizational patterns evident in implementing word processing in the business environment.
5. List the skills, attitudes, and knowledge needed by word processing personnel.
6. Describe career advancement opportunities in word processing.
7. Assess his/her own personal strengths and weaknesses, likes and dislikes, skills, abilities, and employment goals to determine how successfully he/she relates to word processing careers.

Equipment Operation

The student should be able to:

8. Identify basic kinds of word processing equipment and demonstrate a knowledge of the capabilities and effectiveness of each kind of equipment in handling a variety of business document applications.
9. Demonstrate proficiency and correct techniques in operating the following business machines: electric typewriters, magnetic keyboard equipment, dictation and transcription equipment, calculating business machines, and reprographic equipment.

Supervision and Management Skills

The student should be able to:

10. Effectively demonstrate proficiency in coordinating work and materials and in performing job tasks efficiently while setting appropriate priorities on duties to be performed by the supervisor or as the supervisor directs others.
11. Identify and discuss methods of motivating employees, maintaining morale, and determining policies which affect the productivity of office workers.
12. Identify procedures used to organize and implement a word processing center and determine appropriate methods for handling a new word processing environment.
13. Discuss effective ways of making decisions in regard to the revision of office procedures, the determination of work organization, and the utilization of space in a word processing environment.
14. Describe techniques for scheduling and coordinating activities, maintaining quality control, and coordinating the functional activities of the center with activities of other areas.
15. Develop procedure manuals and training plans.

Systems Analysis and Design Concept

The student should be able to:

16. Identify reasons why a managed word processing system can be highly productive and cost effective in handling business correspondence.
17. Discuss the importance of proper procedures in processing documents and the purpose and need for work measurement in word processing.
18. Demonstrate how the effectiveness of standardizing procedures and the "team approach" can produce quality work in a minimum amount of time.

Competencies Needed by Word Processing Personnel

In addition to the instructional objectives stated above, word processing curriculum planners need to be cognizant of the competencies necessary for word processing jobs and careers. These competencies have been identified in the professional literature and should be used as a guide when curriculum planners establish the necessary levels of proficiency for various jobs. The competencies identified by Anderson and Kusek (and published in the Illinois *Curriculum Guide in Word Processing)* are particularly useful. This listing (see page 19) provides a comprehensive view of the competencies needed by correspondence secretaries and administrative secretaries (as well as supervisors) and was not designed to differentiate the competencies needed by each.

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[12] Marcia A. Anderson and Robert W. Kusek, *Word Processing Curriculum Guide* (Springfield, IL: Illinois Office of Education, 1977), p. 27-8.

Competencies For Word Processing Job/Careers[43]

A. Concepts, Processes, and Careers in Word Processing
   1. Identify differences in characteristics of "social" offices versus offices with word processing.
   2. Understand the origins of word processing offices and terminology pertaining to word processing.
   3. Evaluate procedures used in word processing offices.
   4. Understand the relationship of word processing, data processing, and the total information system of the office.
   5. Understand careers and career paths made possible by word processing.

B. Verbal Communicatons
   1. Use appropriate telephone techniques.
   2. Efficiently organize and dictate materials for letters, documents, and reports.
   3. Use effective oral communications to give clear explanations and directions.

C. Written Communications
   1. Compose rough drafts of original documents, including letters, reports, and memos so the message is understood and accepted.
   2. Use correct grammar, spelling, punctuation, capitalization, and numerical form.
   3. Proofread and edit all material accurately.
   4. Compose clear and concise written instructions for use in procedure manuals.

D. Equipment Related Skills
   1. Keyboarding
      a. Accurately and rapidly type straight copy and numerical (statistical) copy using machine controls properly.
      b. Accurately arrange and rapidly produce all types of office correspondence and reports.
      c. Neatly correct errors using various means.
      d. Operate automatic keyboard, determining appropriate format with machine coding applicable to format, and mechanically correct errors.
   2. Transcribing
      a. Efficiently operate transcribing machine.
      b. Accurately and rapidly keyboard a dictated document while listening to the transcribing machine.
   3. Dictating
      a. Efficiently operate dictation equipment.
      b. Dictate material concisely and efficiently.
   4. Reprographics
      a. Operate copying equipment efficiently and for appropriate purposes.
      b. Produce quality duplicated copy using various duplicating processes.

E. Planning, Organizing, Decision-Making Skills
   1. Determine log/index of documents; utilize and follow up the system effectively.
   2. Organize and utilize efficiently a work area filing system.
   3. Organize work stations for maximum efficient utilization.
   4. Set appropriate priorities on work to be performed.
   5. Manage time and tasks efficiently.
   6. Accurately interpret materials flow, implement procedures, and recommend changes in systems.
   7. Develop an effective system for handling incoming mail.
   8. Distribution of correspondence:
      a. Determine the purposes of using copying versus duplicating processes.
      b. Determine purposes for the use of mail versus electronic distribution.
   9. Accurately and quickly research information using a variety of sources.
   10. Independently analyze data and present it in visual formats.
   11. Make travel arrangements correctly and prepare corresponding itineraries.
   12. Arrange meetings anticipating all details, performing needed tasks, and following through.
   13. Logically solve recurring problems as well as isolated ones.
   14. Determine and accurately coordinate calendars for a number of principals.

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[43] Ibid.

F. Supervision Skills

1. Schedule, supervise, and evaluate typing and clerical functions, maintaining quality control.
2. Coordinate functional activities with other areas.
3. Utilize motivational techniques with employees.
4. Review procedures and implement necessary changes.
5. Appraise performance and determine salaries.
6. Maintain records on equipment, supplies, and fiscal matters.
7. Organize and implement training plans.
8. Develop and implement plans for work organization and office space utilization.
9. Develop and implement a total record management system.

G. Business Attitudes/Personal Development

1. Develop integrity on confidential matters.
2. Exhibit inter-personal skills that are acceptable in business including:

   Attentive listening
   Concentration and ability to work with interruptions
   Willingness
   Coping with pressure
   Loyalty
   Completing work on schedule
   Acceptance of criticism
   Good sense of humor
   Toleration of routine work
   Acting with tact, courtesy, and calmness
   Working harmoniously for a common cause

Research by Powell augments the Anderson-Kusek competencies list because this study established the primary competencies needed by correspondence, administrative, and management personnel. Powell found that written communication skills and verbal communication skills were rated as the first-priority competency for both entry-level correspondence and administrative secretaries. Research indicated that administrative secretaries had a greater need for training in the composition of written materials while correspondence secretaries had a greater need for the typing operations included in the processing of these materials. Logging of information, setting priorities on work, and managing time were rated as equally important for both corresponding and administrative support secretaries. However, work station management and machine transcription subject areas were evaluated as major considerations in the training of correspondence secretaries; other office skills were evaluated as somewhat more important for administrative support secretaries.[44]

Word Processing Job Tasks and Characteristics Needed by Word Processing Personnel

As word processing curriculum designers consider the competencies needed by the various correspondence, administrative, and management personnel, the designers also need to know the kinds of tasks performed by each and the personal characteristics needed by word processing personnel to successfully accomplish the work. A most helpful guide for curriculum planners has been developed by Bergerud and Gonzalez, entitled "Work Functions for a Word Processing System" see figure 1, pages 21 and 22.[45]

In considering the personal characteristics needed for the various word processing jobs, curriculum planners can usefully supplement the Bergerud-Gonzales listing with Wagoner's designations of the aptitudes and attitudes particularly appropriate for correspondence, administrative, and management personnel.

The correspondence, or word processing specialist, Wagoner says, should be:

—motivated by and derive satisfaction from actual physical output (which may be "stacks" of paper!);

—be tactful, diplomatic, and courteous in interpersonal relationships with visitors, telephone contacts, and co-workers; and

—work independently, researching and assimilating data required for special assignments or projects.[47]

The correspondence, or word processing specialist, Wagoner says, should be:

—motivated by and derive satisfaction from actual physical output (which may be "stacks" of paper!);

—machine oriented, since the job is basically machine and production oriented;

—able to concentrate in spite of noise and distractions;

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[44] Merton E. Powell, "A Study to Evaluate the Modern Automated Word Processing System—Its Implications for Changes in the Curriculum for Business and Office Education." Ph.D. dissertation, University of Montana, 1975, p. 161.

[45] Marty Bergerud and Jean Gonzalez, *Word Processing: Concepts and Careers* (New York: John Wiley & Sons, 1978) p. 168.

Figure 1

WORK FUNCTIONS IN A WORD PROCESSING SYSTEM

FUNCTION	OTHER JOB TITLES USED TO MEAN SAME POSITION	RESPONSIBILITIES OR TASKS	CHARACTERISTICS NEEDED FOR THE JOB
CORRESPONDENCE (People who operate word processing equipment/have typing responsibilities.)	*Corresponding secretary* Word processing secretary Word processing operator Word processing specialist Word processing coordinator Word processor Operators: Mag Card, MC/ST MT/ST, ATS Typist: Power typist, Word processing typist Transcription specialist Typing correspondence specialist Proofreader Junior correspondence secretary Equipment operator Text editor operator Document Specialist	Type fast Produce error free copy Spell & punctuate accurately Proofread Correct errors Manage time Set work priorities Possibly take dictation Machine transcribe Do high volume of work Do quality work Collate and possibly distribute work	Positive attitude Like to type Analytical/abstract ability Machine oriented Mechanical aptitude Technical ability Ability to understand new equipment/terminology Enjoy working with equipment Able to accept chall./change Conscientious to detail Self-directive, a "doer" Loyalty Ability to handle pressure Confidentiality Accept criticism, flexible Work with interruptions Like teamwork/cooperative
ADMINISTRATIVE (People who have non-typing responsibilities.)	*Administrative Secretary* Administrative specialist Administrative support specialist Word processing secretary Administrative assistant/secretarial trainee/secretary Receptionist Executive assistant Paraprofessional assistant Letter composer/editor	Handle manager's routine calls/good telephone techniques Oral communications Compose some written communications Produce error free copy Proofread Compose and edit Correct errors Dictation Schedule work Do research Filing Mail handling Photocopy Distribute mail Run errands Statistical calculations Plan itineraries	Good attitude Supportive Conscientious to detail Self-directive, a "doer" Loyalty Ability to handle pressure Confidentiality Accept criticism Work with interruptions Work well with others Ability to understand new equipment/terminology Able to accept challenge Able to accept change

WORK FUNCTIONS IN A WORD PROCESSING SYSTEM

MANAGEMENT (One who directs other people.)	*Manager* Supervisor Coordinator Correspondence coordinator Administrative coordinator Administrative support supervisor Secretarial services administrator Boss Secretarial supervisor Office Manager Manager of correspondence secretaries/services Manager of administrative secretaries/services Management Services Director	Dictation-assign titles, determine retention time storage/distribution Oral communication skills Set priorities on work Coordinate staff efforts Leadership and motivation Planning, controls budget Explore/apply new ideas Employ/train personnel Problem solving Prepare management reports Sell the WP system to the organization Provide flexible/adaptive facility, equipment and system Performance work standards Careful planning of change activity	Good attitude Intelligence Flexible Imagination Likes to work with people Works well under pressure Can meet deadlines Ability to understand new equipment Ability to understand equipment terminology Accepts challenge Accepts/promotes change

—able to sit at a work station for long periods of time while operating a machine and to work under pressure; and

—able to conceptualize—that is, to be able to visualize what a finished document will look like before it is printed out.[46]

The administrative services specialists as Wagoner perceives their tasks, should have the ability to:

—take charge—that is, to work independently and demonstrate initiative, dependability, and follow-through relative to assigned responsibilities;

—be people-oriented and enjoy working with or for others;

—be calm, organized, and able to coordinate the efforts of others;

—concentrate on organization of tasks in busy surroundings in spite of constant interruptions from telephones, executives, and co-workers;

—be tactful, diplomatic, and courteous in interpersonal relationships with visitors, telephone contacts, and co-workers; and

—work independently, researching and assimilating data required for special assignments or projects.[47]

Word processing managers and supervisors, as Wagoner indicates, should have the ability to:

—delegate responsibility and develop and evaluate personnel;

—understand and interpret for others company policies and goals;

—interact effectively with middle and top management in achieving goals of the organization;

—apply principles of work simplification effectively; and

—continually seek to learn and improve.[48]

In summary, word processing curriculum planners need to consider instructional objectives, competencies, and the range of word processing job tasks as well as the personal characteristics, attitudes, and aptitudes needed by word processing personnel. In order to determine the word processing curricular needs for a particular school, curriculum planners can develop more definitive objectives through a survey of business firms in the immediate geographical area.

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[46] Kathleen P. Wagoner, "The New White Collar Worker," *Career World*, VII (December, 1978) p. 11.

[47] Ibid., p. 12.

[48] Ibid., p. 13

Delta Pi Epsilon, national honorary graduate business education fraternity, has developed a set of survey instruments which were used in a national study of word processing. The study, currently being completed, is scheduled to be published and disseminated in the fall of 1980. Copies of the instruments used in this study may be obtained from the national Delta Pi Epsilon office, Gustavus Adolphus College, St. Peter, Minnesota 56082.

Suggested Course Content

The following course outline, designed in conjunction with the instructional objectives and related curricular guidelines above, represents an integrating of units suggested in word processing periodicals, curricular guides, and textbooks. The units represent, as much as possible, the full scope of word processing. Of course, the specific units and topics selected for instruction should be those units and topics directly related to the learning objectives chosen by the individual business teachers for their particular students.

A. OVERVIEW OF WORD PROCESSING

1. Definitions
2. Word processing as a system in the flow of information
3. Concepts of word processing
    a. Division of work and specialization of function
    b. Increase in secretarial productivity
    c. Team approach to secretarial support and service
    d. Standardization of procedures
    e. Managed and controlled system
    f. System designed with built-in career path for personnel
4. Effects of word processing
    a. Advantages
    b. Disadvantages
    c. Changes in the office function

B. HISTORICAL EVOLVEMENT OF WORD PROCESSING

1. Costs of current office practices
2. Development of word processing technology
3. Acceptance of word processing by business
4. Problems and issues

C. FEASIBILITY OF WORD PROCESSING WITHIN AN ORGANIZATION

1. Interest of top management
2. Feasibility study
    a. General kinds of work being processed (letters, forms, reports, etc.)
    b. Volume of work currently being processed
    c. Types of documents processed (repetitive, original, etc.)
    d. Form of input (dictation, hand-written, etc.)
    e. Presentation of dictation to management
    f. Other factors
3. Orientation and selection of word processing personnel

D. ORGANIZATIONAL STRUCTURE AND PATTERNS

1. Needs of business organization
2. Position of word processing in organizational structure
3. Physical location
    a. Centralized
    b. Decentralized
    c. Centralized/decentralized combinations
    d. Satellite centers
    e. Distributed centers
    f. Other patterns
4. Environmental factors
    a. Physical layout
    b. Space utilization
    c. Lighting, heating, sound, and ventilation requirements
    d. Furnishings

E. ORIENTATION TO INPUT EQUIPMENT

1. Dictation and transcription equipment
2. Types of media for dictation equipment
3. Dictation techniques and procedures
4. Analysis, evaluations, and selection of input equipment

F. ORIENTATION TO OUTPUT EQUIPMENT

1. Kinds and capabilities of output equipment
2. Types of recording media for information storage and retrieval
3. Applications suitable for output equipment
4. Keyboarding techniques and procedures
5. Analysis, evaluation, and selection of output equipment

G. IMPLEMENTATION OF WORD PROCESSING

1. Determination of objectives
2. Preparation of a Gantt chart

H. WORD PROCESSING AND REPROGRAPHICS

1. Integration capabilities of processes
2. Application potential

I. WORD PROCESSING AND MICROGRAPHICS

1. Integration capabilities of processes
2. Application potential

J. WORD PROCESSING AND RECORDS MANAGEMENT

K. WORD PROCESSING PERSONNEL

1. Role and responsibilities of word processing manager/supervisor
2. Role and responsibilities of correspondence secretary/specialist
3. Selection and training of word processing personnel

L. WORD PROCESSING CONTROL AND MEASUREMENT PROCEDURES

1. Establishment of work standards
2. Record keeping procedures
3. Standardization of production procedures
4. Measurement of output
5. Preparation of procedure manuals
   a. Word processing center
   b. Users

M. WORD PROCESSING ADMINISTRATIVE SUPPORT

1. Functions performed
2. Role and responsibilities of administrative support manager/supervisor
3. Role and responsibilities of administrative support secretary
4. Selection and training of word processing administrative personnel

N. CAREER OPPORTUNITIES IN WORD PROCESSING

1. Job titles
2. Job descriptions
3. Skills, abilities, and knowledges required
4. Future career opportunities

O. RELATIONSHIP OF WORD PROCESSING TO THE "OFFICE OF THE FUTURE"

1. Information needs of the future
2. Integration of word processing with other systems
   a. Photocomposition and phototypset systems
   b. Facsimile systems
   c. Optical character system
   d. Telephone systems
   e. Electronic mail systems
   f. Reprographic systems
   g. Telecommunications
   h. Records management
3. Merging of word processing and data processing into information systems network
4. Other anticipated changes

Education Models. Three alternative models of word processing education exist. The needs of the students, employment data from the local community, the availability of financial resources, the structure of the present curriculum, and the general policies of the school system dictate which model is most appropriate for word processing education. The alternative models are:

(1) integration of content within existing courses, which requires revision of the content of present business courses;
(2) addition of one course in which word processing concepts are taught; and the
(3) implementation of a full curriculum in which a progressive series of courses are added.

The integrated model would require revision of content in such business courses as Typewriting, Transcription, Office Procedures, Office Management, Business Communications, and Cooperative Work Experience. The advantage of this approach is that the addition of a new course is not required. This is appealing to departments with limited resources in a crowded curriculum. However, among the disadvantages are (1) the need to interest business teachers in revising several courses to allow for new content, and (2) the need for coordination of several courses and instructors to avoid unnecessary duplication and to provide continuity. The objective would be to divide among present courses the concepts of word processing; in some courses only one or two units might be included, while in other courses more content could be covered.

The one-course model might include the following areas: Introduction to Word Processing Concepts and Careers, Machine Transcription and Related Skills, Magnetic Keyboarding, and Word Processing Simulation. The advantage of this approach is that a comprehensive and coordinated program of instruction can be developed within one course. The disadvantages are (1) limited time is available for each content area, and (2) difficulty of obtaining approval for a new course in the curriculum.

The full-curriculum model involves the development of new courses in the following areas: Magnetic keyboarding, machine transcription, administrative support services (office procedures), word processing (concepts, careers, supervision, management, and systems analysis), model office simulation, and cooperative work experience. Consideration should be given also to including data processing as a part of the curriculum. The advantage of the full curriculum is its complete and in-depth treatment of the study of word processing. The primary disadvantages are the amount of resources required to offer a complete curriculum and the difficulties in obtaining approval. Substantial short- and long-term employment opportunities usually must exist to justify this approach.

Sequence of Instruction. Sequence of instruction in word processing education varies from school to school. Although some flexibility is possible, the suggested sequence is:

(1) introduction to word processing concepts and careers,
(2) word processing skills (basic and advanced), and
(3) word processing supervision and management.

The prerequisites to this sequence are keyboarding skill and basic language skills. The level of skill required depends upon the nature of the word processing skills segment of the instructional sequence.

Levels of Instruction

Certain components of word processing instruction are necessary regardless of the level of instruction. However, the emphasis given to the particular components usually change depending on the educational level of the institution.

Secondary. Secondary level instruction should include an introduction to the concepts of word processing (including definitions), the advantages and disadvantages of word processing and the effects of word processing on offices, jobs, and skills. Emphasis should be on basic skills and attitudes, including language skills, keyboarding, cooperative teamwork, and working under supervision.

Community college. Community college instruction should cover those areas appropriately taught at the secondary level, with basic skills being reviewed and reinforced. However, an added emphasis at this level should be on specialized equipment operations and the use of specialized vocabulary and the introduction to more advanced word processing application work. Supervisory skills and word processing management techniques should also be included.

Four-year college. Four-year college-level instruction should include the areas described above with a greater emphasis on management systems design and analysis. Also, business courses should provide expanded career opportunities in teaching, selling, and consulting.

Continuing Education. At the continuing education level of instruction, an emphasis should be on the supervision and management aspects of word processing. In an early study of the continuing education needs of word processing personnel, the area of management was frequently cited.[10]

Equipment vs. Non-equipment

Equipment, of course, is a central concern in offices with word processing. However, just as business people have at times overemphasized the relative importance of equipment, word processing education sometimes puts equipment at the center of its instructional programs—often without an adequate understanding of word processing. Equipment is often essential and usually very valuable to instruction in such a technical area as word processing. However, equipment skill (machine operation) is only one of several instructional objectives in the teaching of word processing.

Some instructional goals, however, can be achieved without extensive equipment. Pre-machine transcription skills can be developed through oral response typing and by using taped materials in typing classes. The back-spacing, retyping method can be used to emphasize rough draft typing techniques on any electric keyboard. Pre-machine dictation skills of outlining and oral composition can be taught with a simple tape player. Reprographics decision-making can be taught by using a fluid duplicator, a stencil duplicator, and copier—equipment usually available in most schools. Word processing equipment is necessary to teach machine operation skills and can be used to illustrate career and concept information. Often, only the first goal of learning machine operation skills is reached. The second goal of career and concept information must be emphasized to provide a more in-depth study of word processing as a management concept.

Ways to Implement Word Processing Instruction

Methods and Activities. Various methods of individualizing instruction are recommended to meet more effectively the needs of students. Self instruction and one-on-one instruction are also recommended to facilitate this individualized approach and to allow maximum use of equipment. Although much of the content of word processing can be taught through large group or classroom instruction, instruction in the use of magnetic keyboards and transcription equipment may need to be provided in a more flexible manner and on a rotational basis.

Selected teaching methods and activities to develop specific skills are given below. Detailed explanations are given only where special methods or activities are involved.

Basic Skills. Basic skills instruction can be individualized via the following steps: (1) skill inventory pre-test, (2) analysis/prescription, (3) reinforcement/realistic application, and (4) post-test.

Students at all levels of instruction have varying degrees of language skill. Often students know language rules but have difficulty with the practical application of the rules. These difficulties should be identified and overcome individually. It is important that students be able to communicate well both orally and in writing. In addition, proper spelling and punctuation skills are necessary. Areas of overall weakness should be covered with the class as a group where this is possible. Progress should be individually paced and continuous. Mastery should be required.

Other areas in which students need to have basic skill proficiency include:

- —typing skill (both speed and accuracy)
- —the use of business machines available (magnetic keyboard typewriters, transcription equipment, dictation equipment, calculating equipment, reprographics equipment)
- —office telephone techniques
- —use of business terminology
- —efficient organization of work

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[10] Robert W. Kusek, "An Analysis of Continuing Education Needs of Secretarial Personnel in Word Processing and Traditional Offices with Implications for Community College Program Development." Unpublished doctoral dissertation, Boston University, 1974.

In addition, students should have a basic knowledge of the concepts of word processing, the various career areas in word processing, the work flow for processing information in the office, and the prevailing office standards concerning personal appearance, neatness, and acceptable dress.

Students should also be prepared for the interview process and for writing letters of application, letters requesting recommendations, and follow-up thank you letters.

Specialized Equipment Operation and Related Training. Specialized equipment operation and related training usually involves instruction on a one-to-one, self-instructional basis with teacher assistance as needed. Basic and advanced machine operation can also be effectively taught in this manner. Specialized terminology and practice on more advanced applications can also be learned in this way, depending upon materials available and the capabilities of the students.

When instruction manuals prepared by manufacturers are used for instruction, teachers may find some modification necessary. A common weakness in these manuals is the lack of reinforcement materials and application problems which allow the student to develop confidence in using the equipment. Often, students move to new operations with little feeling of the "power" that the equipment should provide. By periodically adding jobs or in-basket projects, "power" applications can be introduced.

Supervisory and Management Skills. Supervisory and management skills can be developed through the use of several kinds of activities. Role playing of problem situations encountered with employees will help in developing the ability to analyze and respond as a supervisor. Case studies can also be used to help students develop skills of analyzing and reacting to different situations. Simulation and in-basket projects expose students to various types of supervisory/management activities often encountered where priority decisions and other decision-making judgments must be made.

To help develop the skills needed to train new employees, students can develop training plans for teaching dictation skills and equipment operation and then actually teach students from outside of the class. Students can also be assigned to do planning and reporting memos, requiring them to plan one week ahead, predict their accomplishments, and report the past week's problems and accomplishments. This activity can be effectively utilized during the basic language skills or machine transcription activities to give students experience in planning, reporting, and writing.

Teaching Materials

The availability of teaching materials in word processing continues to increase. New materials reach the market almost daily. A sampling of textbooks, audio-visual instructional packages, and word processing office materials divided according to instructional area is provided below. Reference materials are also cited, as teachers often use them as basic teaching guides.

Basic Skills:

Cleary, J. and Lacombe, J., *English Style Skill-Builders*, A Self-Improvement Program for Transcribers and Typists, Second Edition, Gregg/McGraw-Hill Book Co., New York, 1977.

DDC Machine Transcription (cassettes), Dictation Disc Company, 240 Madison Avenue, New York, NY 10016, 1977.

Meyer, L. and Moyer, R., *Machine Transcription in Modern Business*, John Wiley & Sons, New York, 1978.

Rosen, A., *AVT Machine Transcription* (slide/tape lessons), Media Systems Corp., 757 Third Avenue, New York, NY 10017.

Mach, K., Mitchell, W., and LaBarre, J., *Typewriting: A Mastery Approach*, Comprehensive Course, SRA, Inc., 259 East Erie Street, Chicago, IL 60611, 1978.

Mason, J., *Word Processing Skills & Simulations*, The Bobbs-Merrill Company, Inc., 4300 West 62nd Street, Indianapolis, IN 46268. 1979.

Transcription Skills for Word Processing (IBM media), Western Tape, 2761 Marine Way, P. O. Box 69, Mountain View, CA 94042, (originally published by IBM).

Advanced Skills:

Dow, R., *Legal Transcription*, Western Tape, 2761 Marine Way, P. O. Box 69, Mountain View, CA 94042.

Mitchell, W., Mach, K., and LaBarre, J., *Typewriting: A Mastery Approach*, Advanced Course, SRA, Inc., 259 East Erie Street, Chicago, IL 60611, 1978.

Terminology and Transcription for the Medical Secretary, (IBM media), Western Tape, 2761 Marine Way, P.O. Box 69, Mountain View, CA 94042.

The Art of Machine Transcription, Available through Science Research Associates, Inc., 259 East Erie Street, Chicago, IL 60611.

Machine transcription materials utilizing specialized vocabulary are produced by various office equipment manufacturers.

Concepts and Careers:

Bergerud, M. and Gonzalez, J., *Word Processing: Concepts and Careers,* John Wiley & Sons, New York, 1978.

Cecil, P., *Word Processing in the Modern Office,* Cummings Publishing Co., 2727 Sand Hill Road, Menlo Park, CA 94025, 1976.

Kupsh, J., Anderson, D., Meyer, L., and Moyer, R., *Machine Transcription and Dictation,* John Wiley & Sons, New York, 1978.

Mason, J., *Introduction to Word Processing,* Bobbs-Merrill Co., Inc., 4300 West 62nd Street, Indianapolis, IN 46268, 1979.

McCabe, M. and Popham, L., *Word Processing, A Systems Approach to the Office,* Harcourt, Brace, Jovanovich, Inc., 7575 Third Avenue, New York, NY 10017, 1977.

Rosen, A. and Fielden, R., *Word Processing,* Prentice-Hall, Inc., Englewood Cliffs, NJ, 1977.

Word Processing, (audio-visual materials), A. B. Dick Company, Chicago, IL 1978.

Word Processing, (audio-visual modules), Robert J. Brady Company, Bowie, MD 20715, 1978.

Equipment:

Various cassette/workbook materials and practice sets from Western Tape.

Various AVT slide/tape lessons from Media Systems Corporation.

Various instructional manuals and media programs from manufacturers.

Supervisory/Management:

Rosen, A. and Fielden, R., *Word Processing,* Prentice-Hall, Inc., Englewood Cliffs, NJ 07632.

Waterhouse, S., *Word Processing Fundamentals,* Harper & Row Publication, 10 East 53rd Street, New York, 1979.

Teacher Education:

Anderson, M. and Kusek, R., *Word Processing Curriculum Guide,* Illinois Office of Education, Springfield, IL, 1977.

State of Minnesota, *Word Processing Simulation/-Curriculum Guide,* Department of Education, St. Paul, MN 55101.

Materials to be developed by the International Word Processing Association, Educators Advisory Council, Maryland Road, Willow Grove, PA 19090.

Other reference materials are also included.

Language Skills:

Sabin, W., *Gregg Reference Manual,* text edition and worksheets, Gregg/McGraw-Hill, Manchester Road, Manchester, MO 63011.

Whalen, D., *The Secretary's Handbook,* Third Edition, and tests, Harcourt, Brace, Jovanovich, 1978.

Jobs & Careers:

Word Processing Job Descriptions

Word Processing Procedure Manuals.

Concepts, Supervision, & Management:

Anderson, T. and Trotter, W., *Word Processing,* AMACOM, 135 West 50th Street, New York, 10020. 1974.

Dartnell's Glossary of Word Processing Terms, The Dartnell Corporation, Chicago, IL, 1975.

Kleinschrod, W., *Management's Guide to Word Processing,* The Dartnell Corporation, 4600 Ravenswood Ave., Chicago, IL 60640, 1976.

Konkel, G. and Peck, P., *The Word Processing Explosion,* Office Publications, Inc., P.O. Box 1231, Stamford, CT. 06904.

Starting a Revolution in Office Efficiency, Geyer-McAllister Publications, Inc., New York, 1973.

In addition, periodicals provide a wealth of teaching and reference materials on word processing. The following is a list of major word processing periodicals.

Administrative Management
Geyer-McAllister Publications, Inc.
51 Madison Avenue
New York, NY 10010

Corporate Systems
United Technical Publications, Inc.
Division of Cox Broadcasting Corp.
645 Stewart Avenue
Graden City, NY 11530

Datamation
Technical Publishing Company
1301 South Avenue
Barrington, IL 60010

Datapro Reports on Word Processing
Datapro Research Corporation
1805 Underwood Boulevard
Delran, NJ 08075

Information and Records Management
Information and Records Management, Inc.
250 Fulton Avenue
Hempstead, NY 11550

Infosystems
Hitchcock Publishing Company
Hitchcock Building
Wheaton, IL 60187

Modern Office Procedures
Industrial Publishing Co.
614 Superior Avenue, West
Cleveland, OH 44113

The Office
Office Publications, Inc.
1200 Summer Street
Stamford, CT 06905

Word Processing
IBM, Office Products Division
Parson's Pond Drive
Franklin Lakes, NJ 07417

Word Processing Report
Geyer-McAllister Publications, Inc.
51 Madison Avenue
New York, NY 10010

Word Processing World
Geyer-McAllister Publications, Inc.
51 Madison Avenue
New York, NY 10010

Words
International Word Processing Association
Maryland Road
Willow Grove, PA 19090

Finally, there are many excellent word processing films available, as indicated below.

1. A set of films on word processing is available from Information Management Corp., 610 North Water Street, Milwaukee, WI 53202 or the Agency for Innovative Curriculum, Inc., 580 Sylvan Avenue, Englewood Cliffs, NJ 07632.
2. Media Systems Corp. produced *Word Processing, The Office of the Future.*
3. Vendors, such as IBM, have many films and other teaching aids.

Summary

Word processing education can be organized in a variety of ways, can be implemented with or without a large amount of equipment, and can encompass certain components of word processing regardless of educational level. However, emphasis should be on basic skill development at the secondary level; on developing and refining basic skills plus more advanced training in specialized equipment operations, vocabulary, and the development of supervisory and management skills at the community college level. Four-year institutions should offer advanced management and increased applications practice. Supervision and management should be emphasized at the continuing education level. Regardless of educational level, there are various methods, activities, and materials available with which to effectively teach word processing.

Annotated Bibliography

Anderson, Marcia A. and Robert W. Kusek. *Word Processing Curriculum Guide.* Springfield, IL: Illinois State Board of Education, 1977.
A curriculum guide covering the concepts of word processing, competencies needed for word processing, jobs, learning activities for developing these competencies, and suggested models for integrating word processing into the curriculum.

Anderson, Robert S., ed. "Estimated Worldwide Word Processing Shipments and Value." *Office Products Analyst,* December, 1978, p. 1.
Data presented showing the astronomical growth in sales or word processing equipment world-wide.

Bergerud, Marty, and Jean Gonzalez, *Word Processing: Concepts and Careers.* New York: John Wiley & Sons, 1978.
A paperback textbook covering the concepts of word processing, emerging career paths in word processing, and systems of processing information.

"Bubble Memory: Memo. A News Digest For Managers," *Administrative Management,* August, 1979, p. 13.

Cecil, Paula B. *Word Processing In The Modern Office.* Menlow Park, CA: Cummings Publishing Company, 1976
A paperbacked textbook which introduces the total concept of word processing including the five phases of word processing, changing office structures, and techniques in implementing word processing within an organization.

Connell, John J. "Word Processing at the Crossroads." Address at International Word Processing Association Syntopican VII, Chicago, IL, June 26, 1979.
A luncheon address made to the membership of IWP to challenge word processing practitioners to do some thinking and questioning concerning the future of word processing. Though not published at this time, plans have been made to publish the speech. Quotations are from the speaker's copy.

Dartnell Corporation. *Dartnell's Glossary of Word Processing Terms.* Chicago: The Dartnell Corporation, 1977.
A 55-page mini-dictionary which includes the commonly used word processing terminology with definitions.

International Data Corporation. "Information Processing and The Office of Tomorrow." New York: *Fortune,* 1979.
An excellent booklet explaining the facets of "The Office of the Future" with special attention toward word processing. This publication is available through the International Word Processing Association.

International Word Processing Association. *Job Titles and Descriptions of Word Processing Personnel.* Willow Grove, PA: International Word Processing Association, 1979.
A complete listing of job titles and descriptions of typical word processing personnel positions published by the International Word Processing Association and used in their annual salary surveys. Listing is up-dated regularly to reflect the word processing job titles and descriptions of jobs found in business, education, and government organizations.

Kusek, Robert W. "An Analysis of Continuing Education Needs of Secretarial Personnel in Word Processing and Traditional Offices with Implications for Community College Program Development." Unpublished Doctoral dissertation. Boston University, 1974.

A study establishing guidelines for community college program development based on a comparison of the needs of secretarial personnel in word processing offices with those of secretarial personnel in traditional offices.

Marmor, Matthew. "Automation of Correspondence Production and Control." *Government Data Systems*, VII (November/December, 1978), p. 20.

Recent factual data concerning the role and extent of automation in the production of correspondence by the federal government is provided in this article.

"Membership Statistics." *Viewpoint*, VI (July, 1979), p. 1.

A monthly update of the number of members of International Word Processing Association as published in the newsletter.

"The Office of the Future." *Business Week*. June 30, 1975.

One of the earliest articles published on "Office of the Future" expectations. Factual data often cited from this article in other works relative to office automation.

"Office Workload: Memo, A News Digest for Managers," *Administrative Management*, August, 1979, p. 13.

Information workload and employee time.

Phillips, Charles W. "Diversity of Special Groups: Description and Needs." In *Vocational Education for Special Groups*. Edited by James E. Wall. Washington, D.C.: American Vocational Association, 1976.

Identifies groups of people with special educational and vocational needs.

Powell, Merton E. "A Study to Evaluate the Modern Automated Word Processing System—Its Implications for Changes in the Curriculum for Business and Office Education." Unpublished Doctoral dissertation. University of Montana, 1975.

A study of business firms in Denver to determine the importance of the subject areas commonly included in a secretarial program to word processing jobs.

"The Secretary Is Becoming An Endangered Species." *Forbes*. December 11, 1978.

Data presented which shows the growing problem of supplying adequate numbers of secretaries to meet the needs of business. Reasons for the problem, ways in which business is responding, and the future outlook relative to secretarial support are discussed.

Soukhanov, Anne H., ed. *Webster's Medical Office Handbook*. Springfield, MA: G. & C. Merriam Comany, 1979.

Chapter 18 on "Office Copying Equipment" in this handbook discusses society's dependence on paper and then proceeds to provide information on the reprographics function in the office.

Wagoner, Kathleen P. "The New White Collar Worker," *Career World.*, VII (December, 1978) p. 11.

Willoughby, Walshe Ann. "W.P. by Moonlight," *Word Processing*, World, August, 1979, p. 13.

Mini computers in the home.

Wohl, Amy D. "Reporting the Equipment Explosion." *Words, the Journal of the International Word Processing Association*, Summer, 1977.

An easy-to-read article which clearly identifies and explains the kinds of word processing equipment currently available. Expected trends of word processing equipment use in the next few years are presented.

"WP Heads Towards Integrated Information Systems." *Modern Office Procedures*. January, 1979, p. 105.

Article explains the role of word processing in the broader office information system in the 1980s as viewed by five word processing vendors.

"WP Typewriter Industry to Exceed 792,000 Installations by 1981." *Word Processing Report*, XIII (September 15, 1977), p. 1.

A short news item projecting word processing equipent installations.

"WP/DP Minicomputers to Equip Future Office." *Word Processing World*, V (October, 1978), pp. 6, 10.

General industry outlook and five-year projections concerning automated equipment sales are made in this article.

MARKETING AND DISTRIBUTIVE EDUCATION

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MARKETING AND DISTRIBUTIVE EDUCATION

NEED AND SCOPE

COMPETENCY-BASED CURRICULUM

SECONDARY SCHOOL CURRICULUM
  Marketing and Distributive Education Program Course Description
  Articulation

COMMUNITY COLLEGE CURRICULUM

PROGRAM PLANNING PROCESS

RELEVANT RESEARCH

NEED AND SCOPE OF COMPREHENSIVE MARKETING AND DISTRIBUTIVE EDUCATION PROGRAMS IN THE STATE OF ILLINOIS

This chapter is based on the Marketing and Distributive Education Curriculum Planning Guide which was prepared as a result of the work of statewide business and education advisory committees over a two-year period of time. This publication can be secured from Curriculum Publications Clearinghouse, Western Illinois University, 47 Horrabin Hall, Macomb, IL 61455 together with a series of competency-based curriculum guides in the area of Marketing and Distributive Education.

Marketing and distributive education programs have received increased recognition in recent years because of the importance of marketing to the economic growth of our nation. Distribution, along with production and consumption, is one of the nation's three leading economic activities. Our system of mass production is based on an efficient system of mass distribution. If distribution fails to achieve its maximum efficiency, our national economy will fall short of reaching its full economic potential.

Employment in marketing, now at an all-time high, will increase faster than in most other occupations. Moreover, the advancement of technology and growth of incomes will increase this figure, with fewer workers needed to produce goods and services and more needed to distribute them. The demand for persons trained in marketing, therefore, is strong and is expected to gather momentum in coming years. Employment opportunities in the field of marketing can be most accurately described as being highly diversified. This is brought about partly because of the complexity of the field of marketing. As in most complex occupational fields, there is a wide array of job opportunities in the field of marketing. Some jobs require a few simple competencies while others require extensive training and education.

Businesses in the field of marketing employ over two million people in the state of Illinois. Vocational marketing and distributive education programs are a composite of vocational programs designed to meet the needs of persons who have entered or are preparing to enter the field of marketing or an occupation requiring competencies in marketing functions such as sales, sales promotion, buying, transportation, storing, stock control financing, marketing research, and management. Marketing occupations are those followed by persons of all employment levels who are engaged primarily in the movement of goods and services to the consumer.

Marketing and distributive education for the state of Illinois is comprised of suggested sequential programs of instruction for fifteen occupational areas. Twelve of the fifteen programs have been identified as being of an interdisciplinary nature. Schools are encouraged to offer marketing courses to students of other disciplines to help provide them with needed skills and knowledges. For example, courses such as introduction to marketing and distribution, retailing, and small business management might be offered for students in the programs of automotive service, clothing, and/or agriculture. In addition, students with marketing career goals in the apparel and accessories and/or food service programs could be offered courses to enhance product knowledge in the home economics area such as textiles, nutrition, and food preparation. A similar interdisciplinary approach can be planned for the following programs: (1) hardware building materials, (2) horticulture operations, (3) home furnishing, (4) lodging, recreation and tourism, (5) industrial materials handling, (6) transportation and warehousing, and (7) small business management. On the secondary school level, students can be prepared for gainful employment in the field of marketing by offering up to a four-year sequential program of courses starting with an exploration of the broad career clusters, progressing to the orientation courses, followed by vocational preparation by utilizing either the cooperative program or project plan.

Articulation between the secondary schools with comprehensive marketing and distributive education programs and the marketing departments of the post-secondary institutions in the state of Illinois is essential. Students should be able to progress to advanced instruction with a minimum of constraints and with maximum encouragement. Students should be fully aware of the steps to follow in continuing their education or in securing employment well in advance of graduation.

Typical establishments with employment opportunities include: food stores, advertising agencies, department stores, wholesale firms, service stations, jewelry stores, banks, savings and loan associations, stock and brokerage firms, marketing functions in manufacturing firms, hotels and motels, building supply firms, delivery and transportation businesses, warehouses, automobile dealers, auto parts stores, bulk oil plants, and all types of small businesses.

The potential for offering a wide variety of instructional programs is almost unlimited at both the secondary and post-secondary levels. Local educational agencies may desire to consider organizing their marketing and distributive education curricula to include instruction in the general marketing area as well as specialized instruction in the following marketing employment areas: (See Figure 1, page 6)

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Figure 1

United States Office of Education Code Number	Marketing and Distributive Education Program Area
04.0100	ADVERTISING
04.0200-09.0202	APPAREL AND ACCESSORIES (x)
04.0300-04.1600-17.1000 17.1400	AUTOMOTIVE-PETROLEUM (x)
04.9902-04.1300-04.1500 04.1700-04.2000	MARKETING SERVICES (x) Personal Services, Insurance, Real Estate, Agriculture Marketing
04.0400	FINANCE AND CREDIT
04.0600	FOOD MARKETING (x)
04.0700-09.0203	FOOD SERVICE (x)
04.0800	GENERAL RETAIL MERCHANDISING
04.0900	HARDWARE BUILDING MATERIALS FARM AND GARDEN(x)
04.1000-09.0204	HOME FURNISHINGS (x)
04.1200-04.2100	INDUSTRIAL MATERIALS HANDLING (x)
04.1100-04.1800-17.9905	LODGING, RECREATION, AND TOURISM (x) (Includes Convention Facilities)
04.9901	SMALL BUSINESS MANAGEMENT (x)
04.1900	TRANSPORTATION AND WAREHOUSING (x) Trucking, Air, Water, Rail
04.2100	WHOLESALING (x) (Includes Brokers except Real Estate)

x Interdisciplinary curriculum

Examples of the twelve interdisciplinary programs which assist students in achieving their career goals include:

1. The clothing, textile, and fashion students in the occupational home economics program should have marketing instruction in the specialized apparel and accessories and/or home furnishings courses.
2. The power and heavy equipment, auto mechanics, auto body, welding, electronics, small motor, and machine shop students in the industrial program should have marketing courses in small business management, introduction to marketing, and record keeping (in the office occupations program).
3. The agri-production and/or agri-business students in the agriculture program should be scheduled for the introductory marketing courses as well as the one in small business management.
4. The transportation program students should have the materials handling, small business management, marketing and distribution, and accounting courses.

The Competency-Based Curriculum

It has long been recognized that sound marketing and distributive education programs are composed of a triumvirate of activities: (1) classroom instruction, (2) the relating of class instruction to the student's career objective in the cooperative laboratory or the project laboratory, and (3) student leadership activities.

The subject matter is identified with the competencies that are essential for employment in the field of marketing. The subject matter is divided, therefore, into areas of instruction that correspond to these competencies. The emphasis placed on the areas of instruction varies depending upon such factors as the job level for which a curriculum is designed and the student's occupational objective. These areas of instruction are always taught, however, in relation to one another and to the field of marketing.

The subject matter of the instructional areas progresses in depth and complexity from basic job curricula to career development job curricula to specialist job curricula. A student who completes a basic job curriculum and decides to enter a career development job curriculum in the same school may study some of the same areas of instruction in both curricula. In the career development job curriculum, however, the subject matter becomes more complex in order to prepare the student for a more advanced job level. Thus, one obtains a greater depth and breadth of study in that area of instruction.

These areas of instruction are applicable to both cooperative and project training. In cooperative training, classroom instruction is coordinated with a series of on-the-job learning experiences related to each student's occupational objective. The subject matter in the cooperative plan is taught, therefore, in relation to the learning experiences that students encounter in their scheduled part-time jobs.

In an alternate approach, project training coordinates classroom instruction with a series of individually selected learning experiences or projects related to each student's occupational objective. The following eleven areas of instruction in this plan are presented in relation to school-directed participation experiences:

1. Advertising
2. Communications
3. Display
4. Human Relations
5. Marketing/Economics
6. Management
7. Mathematics
8. Merchandising
9. Operations
10. Product and/or Service Technology
11. Selling

The way in which instructional areas are applied to a particular curriculum depends upon such factors as students' job goals, the purpose of the curriculum, where the curriculum is available, the method of instruction, and the sequence of training available in a school or community. These factors suggest the following guidelines for the development of curriculum:

1. Identify the curriculum with the trainee's occupational objectives.
2. Plan the curriculum so that the proportion of time devoted to the various areas of instruction is related to the competencies required for the particular job: basic level, career development, or specialist.
3. Make the curriculum consistent with the type of school served such as comprehensive, area vocational, technical school, or community college.
4. Adapt the curriculum to the particular instructional plan that assures vocationally directed learning experiences for those enrolled in either the project or cooperative plan.
5. Plan the curriculum in relation to the sequence of job preparation activities available to students in the school, community area, and state so that students may continue their education by enrolling in various types of advanced level programs in a wide array of adult and post-secondary institutions.

To correctly implement a competency-based curriculum requires careful utilization of training plans both in dealing with the cooperative and project organizational clients. The training plan is most effective when provision is made for providing an accurate description of the competencies the students should acquire such as those listed in the state of Illinois publication entitled *Marketing and Distributive Education Curriculum Planning Guide.* This publication contains a listing of the competencies required for students pursuing a career in the areas of Food and Marketing, General Retail Merchandising, and Wholesaling, together with the competencies that should be taught to students enrolled in a tenth or eleventh grade Introduction to Marketing and Distributive Education course. A portion of a sample training plan is provided to assist in establishing a workable training format. (See Figure 2, page 8)

Secondary School Curriculum

Program planners at the secondary level may find it helpful to consider one or more of the following curriculum offerings based on student and community needs: basic, career development, and specialized.

Basic. The basic job curricula develop fundamental techniques in sales and sales-supporting services, essential marketing concepts, qualifying social competencies, and basic skills in computation and communication. These curricula are available to prepare enrollees for threshold-level marketing occupations involving minimal, often routine, employment responsibility.

Career Development. The career development job curricula develop judgment skills in relation to the functions of marketing, merchandising, and management. Such curricula are designed to prepare students for those jobs which involve competencies and responsibilities beyond the basic job level but less advanced than those needed at the middle management level of employment in marketing.

Specialized. The specialized job curricula emphasize specific functions, product areas, or service fields at mid-levels of employment responsibility. They are designed to prepare students for marketing specializations in fields such as food marketing, wholesaling, finance and credit.

One or more of the curriculum options described in Figure 3, pages 9 and 10, can be implemented in most secondary school settings. Some schools may implement two or three options while others will choose to have all four. The need for a given community or school district in larger communities to implement a wide range of programs within any one of the curriculum options is also becoming increasingly evident when accurate job opportunity data are gathered and analyzed. The potential to serve the diverse needs of students and the business community is greatly enhanced with the recent development of specialized curriculum materials.

Figure 2

MARKETING AND DISTRIBUTIVE EDUCATION
TRAINING PLAN

The ______________ (Training station) ______________ (student) ______________ (school)

______________ (training sponsor) FOOD MARKETING (occupational area) GROCERY CLERK (job title)

approximately 20 hours a week @ $3.50 per hour

EVALUATION CODE: E = Excellent demonstration of achieved competency
S = Satisfactorily achieved competency
NI = Needs additional work and/or instruction to satisfactorily achieve the competency

INSTRUCTIONAL AREA:		COMPETENCY COMPLETION TIME FRAME									
Competency Number	COMPETENCY ASSIGNED	1st. Quarter		2nd Quarter		3rd Quarter		4th Quarter		Evaluation Code	
		Training Station	In School	Training Station	In School	Training Station	In School	Training Station	In School	1st. Eval.	2nd. Eval.
442	Taking accurate stock counts of merchandise for ordering, inventory or unit book control	x	x							S	
463	Ability to participate in merchandise counts for physical inventories			x						NI	S
464	Handling special orders of merchandise for customers						x			S	
466	Using forms and records necessary in inventory control							x	x	E	

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Figure 3

Option I

Basic Job Marketing and Distributive Education Curricula

Suggested occupational course sequence for basic job curricula:

9th Grade—OCCUPATIONAL EXPLORATION (Full Year)
Orientation to Business, Marketing, and Management Careers (Semester) AND Introduction to Business (Semester)

10th Grade—OCCUPATIONAL ORIENTATION (Full Year)
Introduction to Marketing and Distributive Education

11th Grade—OCCUPATIONAL PREPARATION
Retailing OR Specialized Elective Marketing and Distributive Education Project Laboratory (Single or Double Period)

12th Grade—OCCUPATIONAL PREPARATION (Full Year)
Marketing and Distribution and Marketing and Distributive Education Project Laboratory (Double Period) OR Cooperative Distributive Education On-The-Job Laboratory

Option II

Career Development Distributive Education Curricula

Suggested occupational course sequences for career development curricula:

9th Grade—OCCUPATIONAL EXPLORATION (Full Year)
Orientation to Business, Marketing, and Management Careers (Semester) AND Introduction to Business (Semester)

10th Grade—OCCUPATIONAL ORIENTATION (Full Year)
Introduction to Marketing and Distributive Education

11th Grade—OCCUPATIONAL PREPARATION
Marketing and Distribution and Marketing and Distributive Education Project Laboratory (Single or Double Period)

12th Grade—OCCUPATIONAL PREPARATION
Advanced Marketing and Distributive Educational, Cooperative Marketing and Distributive Education On-The-Job Laboratory, OR Marketing and Distributive Education Project Laboratory (Double Period)

Option III

Basic Job Level Specialized Distributive Education Curricula

9th Grade—OCCUPATIONAL EXPLORATION (Full Year)
Orientation to Business, Marketing, and Management Careers (Semester) AND Introduction to Business (Semester)

10th Grade—OCCUPATIONAL ORIENTATION (Full Year)
Introduction to Marketing and Distributive Education

11th Grade—OCCUPATIONAL PREPARATION (Full Year)
Begin specialized basic job level course sequence in an occupational area such as: food marketing, general retail merchandising, apparel and accessories, petroleum, hotel and lodging, food service, transportation, or wholesaling based on student needs and ability to profit from instruction and community needs, AND Specialized Marketing and Distributive Education Project Laboratory (Single or Double Period)

12th Grade—OCCUPATIONAL PREPARATION (Full Year)
Continue specialized course sequence in an occupational area such as: food marketing, general retail merchandising, apparel and accessories, petroleum, hotel and lodging, food service, transportation, or wholesaling, AND Specialized Marketing and Distributive Education Laboratory (Double Period) OR Cooperative Marketing and Distributive Education On-The-Job Laboratory

Option IV

Entry Level Management Specialized Distributive Education Curricula

9th Grade—OCCUPATIONAL EXPLORATION (Full Year)
Orientation to Business, Marketing, and Management Careers (Semester) AND Introduction to Business (Semester)

10th Grade—OCCUPATIONAL ORIENTATION
Introduction to Marketing and Distributive Education

11th Grade—OCCUPATIONAL PREPARATION
Business Organization and Management

12th Grade—OCCUPATIONAL PREPARATION
Specialized Entry Level Management Course in an occupational area such as: food marketing, general retail

merchandising, apparel and accessories, petroleum, hotel and lodging, food services, transportation, or wholesaling based on student needs and ability to profit from instruction and community needs, AND Specialized Marketing and Distributive Education Laboratory (Double Period) OR Cooperative Marketing and Distributive Education Laboratory (Double Period) OR Cooperative Marketing and Distributive Education On-The-Job Laboratory

Marketing and Distributive Education Program Course Descriptions

Orientation to Business, Marketing, and Management Careers. This course is a comprehensive orientation course including a combination of classroom, laboratory and community-based experiences planned to introduce the student to the knowledges and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of a self-concept and matching personal abilities, to make a tentative career choice.

In-depth information into the business, marketing, and management occupational careers, job and educational opportunities, and the educational and attitudinal requirements should be provided.

Instructional units include: orientation to the world of work, the role of men and women in today's society, relationships as related to personal fulfillment, and the factors leading to employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits.

In the business, marketing, and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales and service supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

Introduction to Marketing and Distribution. Introduction to marketing and distribution is a course designed to acquaint students with the scope and importance of the field of marketing and distribution. Further exploration is made of the student's career objective by examining the competitive systems that exist in marketing such as in the areas of sales, finance, credit, transportation, promotion, merchandising, and management. Additional study is made by tracing the process of marketing and transporting goods and services from the producer to the consumer and/or user, and by examining the marketing functions as applied to the many industries represented in the fifteen suggested programs.

Students have an opportunity to begin developing the following basic knowledges, attitudes, and skills needed for entering the field of marketing: communications, mathematics, human relations, selling, consumer, and economic understanding. Students are also introduced to the co-curricular activities of the Distributive Education Clubs of America (DECA).

Marketing and Distribution. Marketing and distribution includes organized learning experiences concerned with the competencies needed by those in entry-level jobs in marketing and distribution. Instruction stresses the marketing functions operating in business enterprises, basic information and skills related to products, and types of distribution services needed. Also included is an understanding of economics, instruction in the use of tools and equipment, and the requirements of employability.

Also included will be an introduction to the career specialization choice of each student who plans to proceed to additional specialized preparatory instruction at the 12th grade level.

Retailing. A course designed to help students acquire the knowledges, attitudes, and skills essential to perform all of the activities involved in the sale of goods or services to the final consumer for personal use. The five broad areas of retailing studies are: merchandising, operations, finance and credit, personnel, and sales promotion.

Marketing and Distributive Education Project Laboratory. The application phase of the marketing and distributive education program prepares students for gainful employment in distributive occupations through a series of selected simulated and/or realistic occupational experiences and projects which develop the student's competencies in marketing, merchandising, or management. The project laboratory activities are correlated with each student's occupational objective. Each student has an individualized training record indicating what is to be learned in both the laboratory and in the classroom; this plan is to be cooperatively constructed by the teacher-coordinator, student, and an appropriate person employed in the field of marketing and distribution.

Business Organization and Management. This course is designed to introduce students to the basic principles and practices of owning a business or serving in a management position. The subject matter includes the study of the process of management, how to supervise, starting a small business, and an overview of the various aspects of business organization and management such as finance, personnel, marketing research, and operations.

Advanced Marketing and Distribution. This is a senior level or capstone course of organized preparatory learning experiences concerned with the competencies needed for securing and holding entry-level jobs in marketing and distribution occupations. The subject matter stresses the marketing functions operating in business enterprises, product and service technology, human relations, occupational adjustment, judgment skills, and additional marketing mathematics and marketing analysis.

Cooperative Marketing and Distributive Education On-the-Job Laboratory. The application phase of the marketing and distributive education program prepares student-trainees for gainful employment in marketing occupations by alternating periods of school-based instruction with periods of planned distributive career experiences in bona fide training stations. Scheduling may be on a half-day, daily, weekly, or monthly basis or in any other regular period. Each student has an individualized training plan indicating what is to be learned on the job and in school. This plan is cooperatively constructed by the teacher-coordinator, training sponsor, and the student. The training plan shows a clear relationship between on-the-job and classroom instruction and the career objective of each student.

Variations in the number and types of programs will exist between communities depending upon the marketing opportunities for students and the priorities determined by the school district. Additional limiting factors include financial and physical resources and the availability of qualified teachers. Area vocational centers are particularly encouraged to offer instruction in specialized areas.

Marketing job opportunities within the fifteen recommended program areas usually exist in relative abundance in highly populated areas since business, manufacturing, service, and/or many governmental establishments are so dependent upon marketing-type activities.

Articulation

Program planners in community colleges have learned that the more closely related instruction is to the immediate employment needs of their students, the better the results. Community colleges offer a wide array of curriculum offerings in many of the fifteen specialized marketing instructional areas. The duration and intensity of the program depends upon whether the student is working toward a Certificate Program or an Associate in Applied Science (AAS) degree. Instruction may be offered for as little as six or eight hours or for as long as two years of full-time study. In addition to preparing individuals for initial employment, frequently the instruction is designed to upgrade the competencies of individuals to help them secure middle level management positions.

The duration and intensity of the community college marketing experience also depends upon the type of curriculum that is most consistent with the student's goals and objectives. The Associate in Applied Science (AAS) degree program, for example, involves the equivalent of two years of full-time study and incorporates elements of general education, general business tool courses and a sequence of specialized marketing courses. The AAS degree program is typically a pre-service program for those aspiring to middle level management positions.

Since community colleges also attract persons presently employed in marketing positions, a number of short-term, in-service programs have been developed for this student group. These offerings are typically designed for the purpose of upgrading the competencies of marketing employees to facilitate advancement into specialist or middle level management postions. Offerings for such students may be a series of half-day or all-day, non-credit seminars and workshops, or a series of two, three, four or more college credit courses organized around a particular specialized marketing instructional area.

These shorter-term programs typically culminate in the award of a "Certificate of Completion." Such a certificate carries the connotation that an individual has completed an organized sequence of marketing offerings in a college level context and at a level of rigor associated therewith. The prospective employer is assured that certain specific marketing competencies have been developed which will have predicted applicability in the work setting.

The community colleges face an articulation challenge that involves three different but related publics: secondary school distributive education programs located in the district area; four-year colleges and universities where the community college student might pursue further education for business, and the local business community. The community college marketing program has important articulation responsibilities toward both high school distributive education programs and college and university marketing programs.

Linkages with The High School Program

Since the major thrust of many high school marketing and distributive education programs is initial employment upon graduation, some high school teachers are not seriously concerned about working closely with either community colleges or universities with marketing programs. Thus, it remains for community college personnel to effect a "bridge" between the high school distributive education program and the marketing programs of the community college.

Specifically, community college programs should be designed to build upon basic marketing competencies developed in the high school program. Further, such programs should clearly lead to career opportunities which are of greater substance than those which would otherwise be available to high school distributive education graduates.

It is strongly recommended that representatives of both secondary and post-secondary schools accept the initiative to contact administrators and instructors of each institutional level. Open discussion in the following educational areas is encouraged:

1. What advanced programs and courses are available and/or are being planned in marketing occupations to provide secondary school graduates with additional competencies to enhance their skills and knowledges for more upward mobility within their career choice(s)?
2. What regulations, policies, procedures, etc., are available to secondary school graduates to insure that they may enter post-secondary instruction at their highest level of achievement, thus eliminating any repetition or level of instruction that the students may have previously accomplished? This may include a procedure for waiver of courses, proficiency examinations, and/or offering college credit for equivalency skills in the career field.
3. What plans and procedures are there to provide the secondary school with resource persons and expertise to work with the secondary school students at their school before graduation particularly with those who plan or hope to attend the post-secondary institution of their choice?
4. How can informative brochures, catalogs, scheduling procedures, and other matriculation information be made available to prospective secondary school graduates?
5. What arrangements can be made for representatives of secondary and post-secondary institutions to mutually share and benefit from each institutional level advisory committee?
6. What permanent arrangements can be made for prospective secondary school graduates from marketing and distribution programs to be invited and transported to post-secondary institutions for the purpose of program and facility orientation? Advantages are to be gained from visiting instructors, meeting students engaged in specific programs of mutual interest, and knowing about a variety of occupational programs.

Linkages with the Four-Year Colleges and Universities

Articulation of the community college marketing program with that of the four-year college and university is a vexing problem. This is true because of differences in the philosophical bases underlying the curriculum in each of the two types of institutions. The program for a marketing major aspiring to a bachelor's degree in business administration in a four-year college or university is much more theoretical in nature. Such a program also devotes considerable time and attention to a general education core and to course work in quantitative methods and behavioral sciences. It is anticipated that the competencies possessed by a graduate of such a program would qualify such an individual for middle-to-upper level management and/or for higher level specialist positions in marketing organizations.

In contrast, the community college marketing program is more applied than theoretical in nature. Such programs permit the development of marketing competencies more closely aligned with middle-level management positions, those frequently held by persons without baccalaureate degrees. Often, community college marketing curricula will include courses not taught at the four-year college and university. For these reasons, the level of articulation between the community college marketing program and that of the program for a marketing major at a four-year college and university is less than perfect. For the student, this lack of fit may mean a loss of credit upon transfer from a community college to a four-year college or university.

Community colleges have additional options for the student who may come from a high school distributive education program to a community college with an interest in marketing as a career. If such a person knows that a bachelor's degree in business administration with a major in marketing is his/her real long-term goal, then that person could simply pursue a "transfer-oriented" business curriculum while at the community college. These programs carry a variety of labels among the several community colleges, but they share in common the feature of allowing the student to transfer all hours earned in such a program to four-year colleges and universities without loss of credit.

Though the availability of such a curriculum addresses the major aspect of the problem of the linkage or upward articulation with the four-year colleges and universities, the fundamental drawback is that such programs typically contain no marketing courses. Thus, the spark of interest in marketing and distribution which may have been engendered in a student through an experience with a high school distributive education program may be dampened through the early college years until the student enters his junior year of college and begins to take the courses typically designed for the marketing major.

Linkages with The Business Community

The third dimension of the articulation problem faced by the community colleges concerns the relationship to the local or regional business community. The relationship to the business community has caused great diversity to emerge among community college marketing programs. Since communities themselves tend to differ markedly, it is only natural that the marketing curricula existent among the community colleges would be similarly varied. Community involvement with the marketing curriculum is, therefore, essential if there is interest in addressing local or regional needs for distribution workers. Community orientation, interest, and input must be encouraged and developed through local marketing advisory committees, individual advice, and cooperation with business, professional and/or community organizations. Through such cooperative efforts, students from the various marketing programs tend to be viewed favorably by prospective employers. This in turn will result in obtaining or upgrading employment opportunities for students pursuing a career in marketing.

The Community College Curriculum

Community college students are hetergenous in many ways including age, socio-economic backgrounds, prior educational experiences, ability, and short- and long-term goals. This heterogeneity among the student body emanates from the mission of the community college to be community-based, or to meet the needs of the constituency of the community which it serves.

A broad range of curricula and services has been developed by community colleges to address the needs of this diverse student body. Thus, "diversity by design" is an inherent characteristic in the community college. Students enrolled in marketing programs in the community college may be categorized into four groups. The first group of students are those who are interested in marketing to the extent that they know their goal is that of obtaining a bachelor's degree in business administration, with a major in marketing. The needs of this group are met in the community college through the "business transfer program" (usually a program which culminates in the award of an Associate in Arts or an Associate in Science degree). Technically, the transfer program in business administration is a generic program meeting the needs of all business transfer students, *including* those interested in a marketing major at the four-year college or university.

A second group of students would be those who desire a comprehensive preparation for an occupational career in middle-level management or in some specialized phase of marketing. This is the group for which the two-year AAS degree marketing curriculum is well-suited.

A third group of students are those who wish to upgrade their skills and/or to attain additional competencies in a certain area of marketing. This is the group for whom the certificate programs, comprising a relatively small number of marketing courses, are most appropriate. This third group may also include individuals who have had considerable business and marketing experience and who could best profit from non-credit short-term seminars and workshops relative to marketing and management topics, as opposed to a formal certificate curriculum. Community colleges are increasingly providing short-term seminars and workshops of this nature.

The fourth group of students found in community college marketing program are those persons who have had little or no background in either formal vocational training or work experience in their area of interest. Such persons are obtaining from the conmunity college a type of orientation experience designed to prepare for entry level positions. Their needs are often met through a combination of isolated course selections coupled with vocational counseling and guidance services. Frequently, students in this category will ultimately matriculate into a certification program and/or an AAS degree program. In recent years, this category has included a large number of women interested in entry or returning to the work force.

Occupationally-oriented community college AAS marketing curricula can be characterized as having three fundamental components: a general education core, a general business core (including tool subjects such as accounting, business law, mathematics, communications, data processing) and the marketing technical or specialty area. The exact "mix" of these courses would be dependent upon the nature of the particular marketing curriculum, the nature of the student body, and the philosophy of the institution and/or its faculty.

It is common to find cooperative education as a component of community college marketing programs. Because of their relative age and because of prior experiences, community college students are often able to receive high quality co-curricular cooperative education experiences that are not available to high school age distributive education students.

A community college may offer *several* distinct marketing curricula. This would be particularly true in the larger institutions. The smaller, and perhaps more rural, college might be limited to a single general marketing curriculum. "Marketing Mid-Management" or "Marketing Management" are common labels for general marketing curricula in the community college.

In those institutions having such programs, the labels associated with the specialized marketing curricula are diverse, but there are marketing courses common to almost all such curricula. "Principles of Marketing" and "Salesmenship" are examples of courses devoted to competencies common to most general and specialized marketing curricula.

Individual colleges might offer AAS degree and certificate versions within the same marketing program, and these programs could be well articulated so that a person starting out in pursuit of a certificate in Food Marketing, for example, would find that all courses taken while in pursuit of the certificate would apply toward the AAS degree program in Food Marketing. Having acquired the specialized marketing courses in Food Marketing while pursuing the certificate program, the student would be obliged only to complete the general education core and the general business core in order to acquire the AAS degree in Food Marketing.

The following illustration provides examples of selected community college marketing programs. These programs asterisked (*) in the illustration relate to marketing career areas addressed in the series of curriculum guides cited earlier.

	Certificate	Associate in Applied Science Degree
General Marketing (Marketing Mid-Management)*		X
Food Marketing (Food Distribution, Supermarket Management)*	X	X
General Retail Merchandising*	X	X
Wholesaling*	X	
etc.		

Increasing specialization and employment demands within the field of marketing suggest that Illinois will not only support, but must demand a diversified program of marketing and distributive education from the post-secondary institutions in the state. Experiences of many Illinois community colleges suggest that a limited number of fairly generalized marketing curricula do not provide students with competencies needed for employment in diverse marketing enterprises found within typical community college districts. Both students and employers are well-served by a wide range of program choices.

Changes within the communities and in marketing technologies require changes in marketing curricula.

The Program Planning Process

Sound educational programs in marketing and distributive education require careful planning. Ideally, a year or more is required to study student and community needs and to design the desired program(s). Even under the most favorable conditions, at least nine months are necessary to gather the essential data, obtain the necessary support in the employing community, organize and work with advisory committees, obtain administrative approval and budget commitment, identify and counsel students who need and can profit from the instruction, employ teaching personnel, and secure the essential instructional facilities and materials.

The need for educational programs in marketing and distributive education may be clear to some school administrators and to enough employers to support a program on a short-term basis. However, comprehensive program development requires detailed needs assessment data to successfully enlist the support of administrative personnel, guidance counselors, faculty members, and community agencies on a long-term basis. Carefully prepared and continually updated needs assessment data will be helpful to school administrators and program implementors in planning and maintaining quality programs both on the short-term and long-range basis. Employment data gathered on the number and variety of job opportunities in the field of marketing can also be used in providing students with updated information on careers in marketing.

Marketing educators need to be aware of occupational trends nationally as well as those for the regional areas in which they plan to operate educational programs. The population of the United States of America continues to be highly mobile, and students can be expected to move not only from one area of the country to another, but to and from rural and urban communities. Updated supply and demand data on workers and jobs in various occupational categories will be increasingly essential knowledge for teachers, students, and guidance personnel. Career information is available in bulletins and reports published by the United States Government Printing Office, Washington, D.C. 20051.

1. *Occupational Outlook Handbook* (published biannually) and the *Occupational Outlook Quarterly*
2. *Manpower Report of the President* (published annually)
3. *Census of Business* (published every five years)

The following outline may serve as a guide for local educational agency personnel with responsibilities for the planning of comprehensive programs in marketing and distributive education:

1. Secure permission from all necessary educational officials to investigate the need for a program or to expand present programs in the field of marketing and distributive education.
2. Contact the Department of Adult, Vocational and Technical Education through appropriate administrative officials in the local educational agency to secure necessary bulletins in order to learn about state guidelines and staff qualifications.
3. Learn as much as possible about educational programs in the field of marketing and distribution through reading various publications and visiting other local educational agencies with quality programs.
4. Request assistance in determining the need for program(s) from the Department of Adult, Vocational and Technical Education.
5. Prepare, in writing, a basic outline of the plan that will be followed in determining the need for revising the curriculum and submit to appropriate local administrative officials for approval.
6. Contact key individuals among employers, employees, schools, service clubs, and other agencies regarding the advisability of setting up or revising a program in marketing and distributive education.
7. Work with the administrative official to appoint a steering committee (temporary advisory committee).

8. Schedule a steering committee meeting at which time the following points are emphasized:
   a. Function of committee.
   b. Objectives of proposed program.
   c. General acquaintanceship with program.
   d. Proposed plan of action.

9. Conduct a student needs assessment survey to determine study needs and interests after sufficient career orientation to the occupational field has been provided. Consider the following:
   a. Students' career plans and interests.
   b. Students' plans for further education.
   c. Students' interests in marketing occupations for which training can be provided.
   d. Students' needs to work in order to remain in school or while obtaining further education.
   e. Students' perceived relevance of local educational agencies for personal needs.

10. Determine employers' needs and interests in the proposed programs by collecting the following types of information:
    a. Number and kinds of current job openings in the field of marketing.
    b. Number and kinds of marketing job replacements needed to fill anticipated job openings during the next five years.
    c. Five-year projections for employment growth.
    d. Job qualifications in marketing occupational categories.
    e. Five-year projection of new and emerging marketing jobs.
    f. Training needs for particular marketing occupations or for competency areas as expressed by employers.
    g. Number of students for whom employers could adequately provide on-the-job training.
    h. Number of employers willing to provide training even though full-time employment opportunities in their organizations are limited.

11. Determine how the marketing and distributive education program(s) can best fit into total program of the local educational agency by answering the following questions:
    a. How much time will be devoted to achieving program objectives?
    b. What courses will make up the program?
    c. What will be the grade level placement of the courses?
    d. How will the program be scheduled?
    e. How will staff members be selected and assigned?
    f. Which existing courses need revision?
    g. What new courses must be added?
    h. How will guidance and exploratory experiences be provided?
    i. How are students to be selected?
    j. How much credit or recognition for satisfactory completion of instruction will be given?
    k. What type of occupational experience laboratory programs will the students participate in—project and/or cooperative?
    l. Who will administer the program(s)?
    m. Are there sufficient physical facilities, rooms, and equipment available?
    n. Can instructional materials be made available?
    o. Can the local educational agency meet the state requirements for the program(s)?
    p. Are qualified instructional personnel available?
    q. Is the local educational agency near enough to the employment community so that students can get to the training stations and other laboratory facilities without undue difficulty?

12. Devise a tentative written one- and five-year plan including: philosophy, measurable objectives, policy formation, control, procedures, responsibilities of personnel, organizational structure and general supervision, broad advisory functions, and an estimated total cost and budget for the program and local plan.

13. Implement the various activities of the tentative plan as approved, such as:
    a. Determine the type or types of program(s) to be installed.
    b. Describe characteristics of students to be served.
    c. Identify occupations for which training will be given.
    d. Plan sequential marketing and distributive education programs and list proposed courses for each program.
    e. Prepare measurable objectives for each program.
    f. Plan and develop internal and external public relations activities for the proposed programs (brochures, presentations, orientation, media, etc.).
    g. Orient faculty and guidance counselors to the marketing and distributive education program plans.
    h. Examine all career options to make sure sex bias does not exist.
    i. Submit all information on proposed comprehensive marketing and distributive education program(s) to appropriate administrator for inclusion in the one- and five-year plan for the Department of Adult, Vocational and Technical Education.
    j. Plan content for orientation to marketing careers course and other courses to be taught the following school year.
    k. Provide space for the program such as classrooms and laboratories.
    l. Plan the appointment of an advisory committee.
    m. Identify students who would benefit from and be interested in the program with the aid of

the administration, faculty, and counseling services.

n. Describe expected student outcomes:
   1. identify career goals and occupations
   2. specify needed competencies
   3. write statement of expected student outcomes

o. Continue to work with the steering committee (temporary advisory committee) made up of representatives of employers and employees for the occupational field(s) and from the local educational agency, parents, and students.

p. Arrange for laboratory experiences with employers (project and/or cooperative):
   1. select training stations (employers of students)
   2. explain the program(s) purpose, policies, and procedures
   3. obtain training agreements
   4. select and appoint training sponsors (on-the-job trainers)
   5. orient training sponsors
   6. develop training plans

q. Arrange placement of students for both project and cooperative experience:
   1. select students and identify their strengths and doubts
   2. match students with training stations where they are likely to succeed and further career goals
   3. arrange interviews
   4. prepare students for job interviews and successful entry
   5. check with employers on their decisions and follow-up with individual conferences with students
   6. continue arranging interviews until all students are placed

r. Plan for employment-related instruction.

s. Order instructional equipment and materials.

t. Make coordination calls as soon as possible in order to avoid problems and to assure a successful beginning for students and training sponsors.

u. Help students organize a vocational student organization chapter and plan chapter activities as part of the total curriculum plan.

v. Continue to work on curriculum development and with the administration to implement locally directed evaluation procedures for the marketing and distributive education programs. Use program and course objectives as a measure.

The above outline indicates a need for long-range planning. There is also a need to continually update the curriculum. The need to utilize the services of local advisory committee members in keeping the program updated is critical to the success of the marketing and distributive education programs.

Recent Curriculum Research

Lucy Crawford set the stage for curriculum research and development activities that were to take place during the next ten years with the completion of her federally funded research. Crawford, in researching sixty-nine job titles for seven occupational catagories within the U.S. Office of Education list for marketing and distributive education, classified the job competencies into the following instructional areas:

1. Advertising
2. Communications
3. Display
4. Human Relations
5. Mathematics
6. Merchandising
7. Operations and Management
8. Product and/or Service Technology
9. Selling[1]

A study completed in Wisconsin by Warren Hillmer determined levels of competencies for job entry in marketing and retail sales programs. The major purpose of the Hillmer study was to provide input for curriculum evaluation by identifying basic competencies required for entry-level positions. The researcher concluded that marketing and distributive education curricula should be evaluated and updated on a continuing basis.[2]

A study was conducted by E. Edward Harris for the U.S. Office of Education entitled "Employer Preferences and Teacher-Coordinator Practices in Distributive Education." The purpose was to determine employer preferences and teacher-coordinator practices as they relate to the organization and operation of distributive education programs at the secondary school level. Harris had teacher-coordinators identify the actual level of achievement of selected competencies that their distributive education graduates of the program actually possessed. Similarly, he asked employers to indicate the competencies that distributive education graduates should possess. The comparative rank ordering of the competencies as perceived by the teacher-coordinators and employers are listed on next page.[3] (See Figure 4, page 17.)

The Interstate Distributive Education Curriculum Consortium (IDECC) was created to complete the task of developing learning activity packages (LAPS) for the ten identified competency areas of the Crawford Study. The IDECC materials identify 69 job titles classified into seven occupational catagories based on the findings of the Crawford study.[4]

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[1] Lucy C. Crawford, *A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education*, Vol. I (Blacksburg, Virginia: Virginia Polytechnic Institute, 1967).

[2] Warren Hillmer and others, *Determining Performance Levels of Competencies for Job Entry*. Final Report. "Marketing and Sales Programs," U.S., Educational Resources Information Center, ERIC Document ED 133 610, August, 1976.

[3] E. Edward Harris, *Employer Preferences and Teacher-Coordinator Practices in Distributive Education* (New York: McGraw-Hill Book Co., 1971).

Because of the nation-wide use of the IDECC materials, a recent study by Roger Ditzenberger measured the attitudes of distributive education teachers toward barriers to implementing the Inter-State Distributive Education Curriculum Consortium learning system.

Figure 4

Rank Ordering of Competencies

Employers Rank Order	Competency	Coordinators Rank Order
1	Following directions	6
2	Acceptance and adherence to company policies and procedures	4
3	Working with people	1
4	Oral communications	8
5	Knowledge of products or services	6
6	Salesmanship (sic)	2
7	Public relations	11
8	Mathematics of business	12.5
9	Decision making	15
10	Nonselling duties	10
11.5	Understanding of how goods and services get from producer to consumer	3
11.5	Written communications	17
13	Display	14
14	Job opportunities in marketing and distribution	6
15	Distribution in the free enterprise system	9
16	Buying	16
17	Advertising	12.5

Ditzenberger's study, entitled "Perceived Barriers to Implementing a Distributive Education Competency-Based Learning System," was the 1978 Delta Pi Epsilon research award recipient. The conclusions of the study included:

1. Distributive education teachers who wrote learning packages did not appear to have more positive attitudes toward the learning system than teachers not involved as writers.
2. Distributive education teachers perceived the factors of clerical assistance, resource materials, lack of time to set up a file system and prepare instruction, lack of the student's career objectives and student motivation, and lack of confidence in the length and sequence of the learning activity packages as barriers to implementing the competency-based learning system.[5]

Dietzenberger also concluded that although the respondents indicated a concern over certain barriers, the teachers appeared to be receptive to implementing the IDECC learning system. He further recommended that the identified barriers should provide a basis for in-service training workshops for marketing and distributive education teachers who plan to implement the IDECC learning system.[6]

Another approach to competency-based instructional materials for marketing and distributive education curricula was initiated by a group of states that banded together to form the "Vocational Technical Education Consortium of States" (V-TECS).[7] This consortium of states had two major purposes: one purpose was to eliminate duplication of curriculum efforts across state lines and the second objective was to produce validated competency lists which could be used in the implementation of competency-based vocational education programs.[8]

Research and development activities funded by the Illinois State Board of Education, Department of Adult, Vocational and Technical Education, resulted in the development of a series of curriculum materials for marketing and distributive educators. The objectives of the research project were to:

1. Identify all the competencies that are most essential for the most common entry level jobs.
2. Identify the most common career ladders or levels and the most important criteria for promotion.
3. Prepare curriculum guides that include a provision both for teaching the essential competencies and for helping students become aware of career opportunities and promotion criteria. The guides include objectives, suggested learning strategies, and a listing of resources available. They will be able to serve as a guide on the career orientation and preparation levels.[9]

The competency approach was utilized at the developmental stage, the competency identification stage, and the implementation stage of the project. Competencies determined by both juries of selected business leaders and employees with experience in that job title, as essential to be a competent employee, were identified. Learning activities, based on the competency identification, were developed to assist the teacher-coordinator in the classroom instruction.[10]

Richard James, in his study of the essential competencies for the most common first-level marketing position in food marketing, general retail merchandising and wholesaling, concluded:

1) The most common first-level marketing position with upward mobility was general grocery clerk in the food marketing industry, salesperson in the general retail merchandising industry, and order picker in the wholesaling industry.

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[4] Crawford, op. cit.

[5] Roger Ditzenberger, "Perceived Barriers to Implementing a Distributive Education Competency-Based Learning System," *The Delta Pi Epsilon Journal,* Vol. 20 (July, 1978,) p. 3.

[6] Ibid., p. 13.

[7] Martha Keeton and others, *Paying and Receiving Bank Teller* (Lexington, Kentucky: Vocational-Technical Education Consortium of States, 1976), p. v.

[8] Ibid.

[9] Illinois Office of Education, State Board of Education, *Marketing and Distributive Education Curriculum Guides 1-5* (Springfield: State of Illinois, 1978).

[10] Ibid.

2) Individuals actually employed in the identified most common first-level marketing position with upward mobility identify more competencies as being essential than do the business-leader jury members.

3) Competencies can be identified that are common to the most common first-level marketing position in the occupational categories of food marketing, general retail merchandising, and wholesaling.

4) Competencies can be catagorized into the eleven marketing and distributive education instructional areas of advertising, communications, display, economics, human relations, marketing, mathematics, merchandising, operations and management, product and/or service technology, and selling.

5) Apparently the perceptions of employee respondents make little difference when classified by demographic and related factors.

Therefore, the state of Illinois Marketing and Distributive Education Curriculum Guides in the areas of food marketing, general retail merchandising, and wholesaling can be used in schools and communities throughout the state.[11]

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[11] Richard F. James, "Competencies for the Most Common Marketing Position in Food Marketing, General Retail Merchandising, and Wholesaling" (unpublished Doctoral dissertation, Northern Illinois University, 1978).

THE COOPERATIVE METHOD IN VOCATIONAL EDUCATION PROGRAMS

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THE COOPERATIVE METHOD IN VOCATIONAL EDUCATION PROGRAMS

AN OVERVIEW OF THE COOPERATIVE METHOD
  - Definition
  - Purposes and Objectives
  - Organization

ESSENTIAL ELEMENTS IN BUSINESS-ORIENTED INSTRUCTIONAL PROGRAMS UTILIZING THE COOPERATIVE METHOD
  - Advisory Committees
  - Qualified Teacher-Coordinators
  - Student-Learners with Appropriate Career Objectives
  - Preparatory Curriculum
  - Selected Training Stations
  - Training Agreements and Training Plans
  - Adequate On-The-Job Supervision
  - Related Instruction
  - Suitable Classroom/Laboratory Facilities and Instructional Materials
  - Adequate Coordinator Time
  - Well Defined School Policies Regarding the Program
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  - Well Organized Program Records
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THE ROLE OF THE TEACHER-COORDINATOR

RELEVANT RESEARCH

THE COOPERATIVE METHOD IN VOCATIONAL EDUCATION PROGRAMS

An Overview of the Cooperative Method

In secondary and post-secondary schools across the country, the cooperative method has been frequently used to provide realistic on-the-job training. The method is widely used to prepare students to enter and advance in marketing and distribution and business and office careers.

Definition

The cooperative method has been the object of misunderstandings and confusion. One reason for this confusion has been the mistaken assumption that the term refers to a particular educational program. Actually, cooperative education does not refer to an educational program at all, but to a method of instruction.

> Essentially, the cooperative method uses an on-the-job training station as a "laboratory" in which occupational competencies are developed, improved, or refined through carefully planned and supervised experiences. Related instruction is provided in the school. Thus, the cooperative method is used in a tripartite instructional approach. Various psychomotor, cognitive, and attitudinal knowledges and skills make up the package of competencies required for a given career objective. Some of these competencies are developed solely in the related class and applied on-the-job. Some competencies may be developed solely on-the-job. Other competencies may be mastered partially in school and partially on-the-job. In addition, competencies may be developed within the program of work set up by the vocational student organization.

The term "cooperative" describes the working relationship between school and business in preparing students to enter and succeed in their chosen career fields. Both the teacher-coordinator and the on-the-job training supervisor have instructional responsibilities. These instructional responsibilities must be jointly planned and coordinated if the instructional program is to be effective.

Purposes and Objectives

Development of skills, knowledges, and attitudes required to perform the tasks within a chosen occupation is a primary concern in vocational education. The overall purpose of the cooperative method is to enable students to acquire and refine occupational skills, knowledges, and attitudes in a realistic learning environment. The tenth annual Gallup Education Poll conducted in 1978 showed that 96 percent of the respondents felt that having a salable skill should be a minimum requirement for graduation.[1] Thus, the overall purpose of the cooperative method and the desires of society are compatible. Experience has shown that the combination of classroom instruction and on-the-job training has enabled youth to enter and advance more rapidly in their chosen career fields.

The emphasis must be focused on instruction and training. If on-the-job activities are provided primarily for other reasons—financial assistance, inducement to remain in school, or as an alternative for unresponsive students—the overall purpose may no longer be achieved and should no longer be labeled as vocational education utilizing the cooperative method. In such situations, the arrangement should be labeled as work experience.

While the overall purpose of utilizing the cooperative method is to facilitate the acquisition of salable skills, the method enables students, local educational agencies, and cooperating business firms to achieve important objectives. More specifically, the following objectives may be achieved by students:

1. Successful application of survival skills as related to the world of work.[2]
2. Acquisition of knowledge needed by employees in chosen occupational areas.
3. Development and refinement of psychomotor skills that are deemed desirable and necessary.
4. Acquisition of desirable work habits and attitudes about work.
5. Successful interaction with co-workers, supervisors, clients, and customers.

The cooperative method provides the local educational agency an opportunity to achieve the following objectives:

1. Provide relevant, up-to-date instruction that prepares students for careers of their own choices.
2. Provide a real-life learning situation which includes risks.
3. Utilize occupationally competent instructors for occupational training.
4. Strengthen school-community relations as a result of business community participation in the instructional programs.
5. Supplement facilities and resources in the school with those found in the business community.

Cooperating business firms may achieve the following objectives:

1. Participate in an occupational instructional program that prepares present part-time and future full-time employees.
2. Acknowledge the service of the school in preparing students through occupationally related instruction to meet career goals.

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[1] Gallup, George H., "The Tenth Annual Gallup Poll of the Public's Attitudes Toward the Public Schools," *Phi Delta Kappan*, Vol 60, No. 1, (September, 1978), p. 40.

[2] O'Neil, Sharon Lund, *Occupational Survival Skills*, University of Illinois at Urbana-Champaign, Department of Vocational and Technical Education, 1975, pp. 10-12.

3. Provide an educational experience for the students in cooperation with the school.
4. Render a service to society by assisting students in the development of salable skills.
5. Assist the school in an endeavor to instil within students an appreciation for the value of work.

Objectives in addition to those mentioned here may be achieved as a result of professional application of the cooperative method.

Organization

Occupational course sequences should be designed in such a manner as to provide orientation to occupational career areas. This usually serves as a beginning point and is scheduled at the ninth grade level. Foundation courses are initiated at the tenth grade level, and through these courses students develop basic skills, knowledges, and attitudes needed in career areas. At the eleventh and twelfth grade levels, the instructional program contains courses designed to equip students with salable skills. While the cooperative method is sometimes used at the eleventh grade level, it is usually advisable to provide in-school laboratory learning experiences prior to the twelfth grade.

Teacher-coordinators report that mature students who have acquired a strong occupational knowledge base, prerequisite skills, and attitudes compatible with employers' expectations are more likely to experience success when placed for on-the-job training. For some vocational programs in business, such as office occupations, prerequisite skills needed to function on-the-job negate the possibility of using the cooperative method prior to the twelfth grade. In community colleges, the cooperative method may be effective during the entire sequential program. However, the purpose of this section is to examine organizational patterns for the cooperative method.

When the cooperative method is utilized in programs of instruction, an organizational pattern must be structured which ensures that all individuals involved are jointly cooperating to achieve mutual outcomes. In addition, the organizational pattern must be based on plans which are based on the belief that each component of the total instruction program, jointly or singularly, contributes to the achievement of career objectives by students. Thus, instructional programs that utilize the cooperative method are necessarily subject to a more complex organizational pattern than other programs using different delivery methods.

While the essential elements in programs using the cooperative method are elaborated upon later, Figure 1, page 7, depicts an organizational chart that shows the relationship of the components in instructional programs using the cooperative method.

The tripartite instructional approach, mentioned earlier in the definition of the cooperative method, is readily visible in the organizational chart. The three major components of the total instructional program are focused upon the student's vocational intent.

School administrators, guidance counselors, advisory committees, on-the-job training supervisors or sponsors, and teacher-coordinators—all have roles to play and responsibilities to assume when the cooperative method is used. When each party understands, his/her role and how individual contributions are synergistic, the total instructional program becomes successful.

Essential Elements in Business-Oriented Instructional Programs Utilizing the Cooperative Method

One of the practitioner's most insistent needs is to find out how effectiveness and efficiency can best be achieved. No matter whether it be in the field of medicine, engineering, or educational programs utilizing the cooperative method, human inventiveness seem always to be solving problems, devising ways to do things better, and generally to be moving ahead in making practices more effective.

On the following pages, useful ideas concerning the cooperative method and its essential elements have been pooled and are presented.

Advisory Committee

Advisory committees made up of representatives from employer and employee groups have long assisted school officials and teachers in planning, implementing, operating, and evaluating vocational programs in business. Advisory committee members show the greatest continued interest and participation when their advice is sought frequently about problems familiar to committee members. In fact, an advisory committee may lend the greatest amount of help to business and office, and marketing and distributive education programs that utilize the cooperative method.

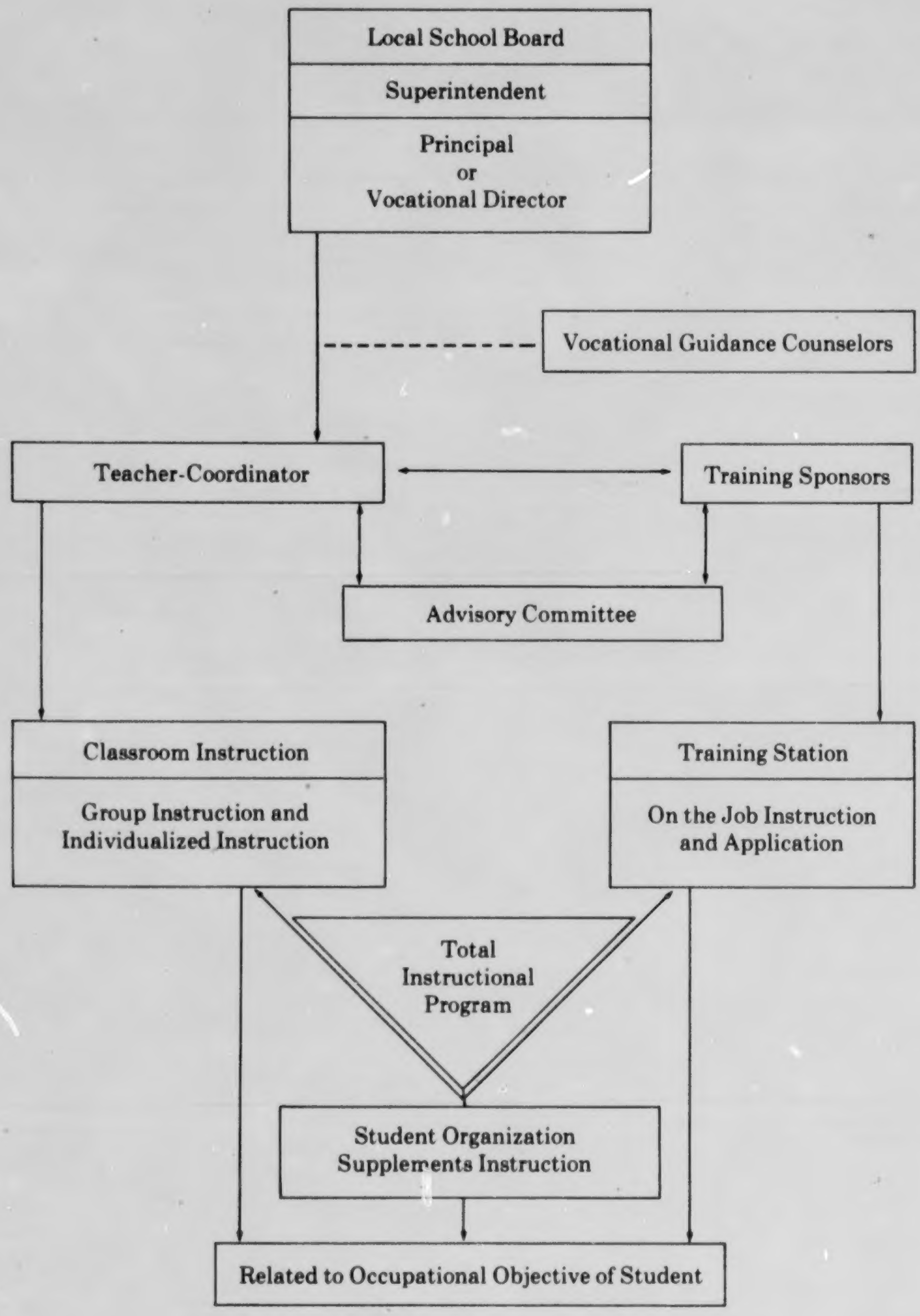
To illustrate the above assertions, formulate a list of tasks under a heading "What Advisory Committees Do." There is little doubt that among the tasks listed will be the following:

1. shorten the lines of communications
2. advise and recommend policy with regard to the total instructional program
3. evaluate the total instructional program
4. insure optimum relations in solving problems unique to the local program
5. provide an increased understanding of the cooperative method among participating business personnel

Indeed, advisory committees can offer schools the same kind of expert assistance that paid consultants offer business firms.

Because of the diversity in business-oriented occupations, advisory committees can be most effective when separately established for each program area. A large comprehensive high school, an area vocational

Figure 1
ORGANIZATIONAL CHART FOR VOCATIONAL INSTRUCTION PROGRAMS USING THE COOPERATIVE METHOD


Local School Board
Superintendent
Principal or Vocational Director
Vocational Guidance Counselors
Teacher-Coordinator
Training Sponsors
Advisory Committee
Classroom Instruction
Group Instruction and Individualized Instruction
Training Station
On the Job Instruction and Application
Total Instructional Program
Student Organization Supplements Instruction
Related to Occupational Objective of Student

center, or a community college might establish separate committees for each of the following programs:

Accounting and Related Occupations
Clerical Office Occupations
Data Processing and Related
  Computer Occupations
Marketing and Distributive Occupations
Secretarial Occupations

Operation of a vocational advisory committee should be such an important part in planning, operating, and evaluating a vocational program that the committees functions are programmed as essential steps in basic operation. Created to insure strong linkage between vocational education and the world of work, advisory committees now constitute the largest system of statutory program aids in the United States. Total membership of vocational education advisory committees now approaches 100,000.[3]

The teacher-coordinator will work closely with the advisory committee that is formed to assist the specialized program area. Therefore, the teacher-coordinator should have major input into selecting members. *A Guide for Planning, Organizing, and Utilizing Advisory Councils* may prove helpful in developing policies regarding the organization and operation of advisory committees.[4]

Such policies should cover:

1. Method of selecting and replacing members
2. Qualifications of committee members
3. Size of the committee
4. Length of term that members serve
5. Duties of the committee
6. Organization of the committees

From the outset, the advisory committee members should understand that only the local board of education has power to enact policy. However, the committee has a responsibility to offer the best advice possible to guide decisions regarding the vocational program to which they are attached.

At the same time, the teacher-coordinator and school administrators must understand that the committee exists to provide a service. Members give of their time without monetary remuneration. Therefore, the committee should be more than a group that receives reports twice a year. The advisory committee provides active assistance leading to program improvements.

During the decade of the 80's, business and office and marketing and distributive education personnel must strive to overcome some pitfalls in the utilization of advisory committees that have been prevalent in the past decade. More specifically, the following goals are to be achieved:

1. Advisory committee members selected because of their qualifications rather than because of friendships with school officials.
2. Committee members well informed about the program they are serving.
3. Acceptable committee recommendations put into practice without delay.
4. Program improvements initiated as a result of advisory committee input instead of ignoring the committee and only meeting with it because of legal requirements.
5. Formal meetings not circumvented by seeking out members and asking for personal opinions or advice.
6. Membership limitations imposed to avoid the creation of a group so large that it becomes unwieldy and does not function efficiently.
7. Sufficient meetings conducted to permit committee accomplishments.
8. Members formally recognized for rendering a public service.

Finally, the teacher-coordinator must develop and refine the competencies required to cope successfully with a program area advisory committee. Institutions providing pre-service training for business and office and marketing and distributive education should provide appropriate learning activities. Pre-service teachers placed in local educational agencies for supervised clinical experiences should be given opportunities to observe advisory committee meetings.

Qualified Teacher-Coordinator

The single most important factor in the successful operation of a business and office or marketing and distributive education occupational program—utilizing the cooperative method—is the teacher-coordinator. Accordingly, local school administrators should consider the selection of qualified persons to fill such positions of great significance.

The publication referred to as Document Number One and entitled *The Illinois Program for Evaluation, Supervision, and Recognition of Schools* sets forth state certification requirements.[5] Candidates for certification in Illinois must complete the concentrated course work, including a methods course, in the desired specialized area of accounting, office, management, or marketing and distributive education. In addition, candidates must complete six semester hours in the areas of organization and administration of cooperative occupational education, coordination techniques, and individualized instructional methodology. The occupational requirement for certification is a minimum of 2,000 hours of employment experiences in the occupational specialty to be taught. The occupational requirement may be met in one of the following ways:

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[3] Swanson, Gordon I., "Vocational Education: Fact and Fantasy," *Phi Delta Kappan*, Vol 60, No. 2, (October, 1978), p. 87.

[4] Board of Education, *A Guide for Planning, Organizing, and Utilizing Advisory Councils*. Springfield, IL: Department of Adult, Vocational and Technical Education.

[5] State Board of Education, *Evaluation, Supervision, and Recognition of Schools*, Springfield, IL: Illinois Office of Education, 1977. (See pages 30, 31, 36, 37, and 38 in the specified publication.)

1. approved full-or part-time employment experiences that toal 2,000 hours.
2. completion of a directed occupational experience in the appropriate specialized area, equivalent to the 2,000 hour employment requirement.
3. completion of a combination of employment experiences and directed occupational experiences equivalent to the 2,000 hour employment experience requirement within four years from the date of initial employment as a coordinator.

Additional qualifications should be judged during the screening and interviewing processes. The satisfaction of educational and occupational requirements does not guarantee that a teacher-coordinator is destined for success. Personality traits and well refined competencies should be carefully examined by local school administrators prior to reaching employment decisions.

Actually, the competencies that a teacher-coordinator must possess are varied and numerous. Candidates for the position of teacher-coordinator should exhibit promise toward probable success in the assumption of a number of roles. (Figure 2, page 10)

Because a teacher-coordinator must assume roles which are not required of other secondary teachers or post secondary instructors, care must be exercised to insure that only suitable candidates survive initial screening endeavors.

Students-Learners With Appropriate Career Objectives

Declaration of an occupational objective is a legal enrollment requirement, but sometimes such declarations are made as a matter of course rather than an honest statement of career interest. The very nature of the cooperative method may lead students to consider enrolling in programs that utilize the method regardless of their future career aspirations. An opportunity to earn money and an opportunity to spend a portion of the school day in a work environment may be strong motivating factors.

Therefore, it is necessary to use a process of selecting students that includes the validation of their vocalized career interest through accepted guidance procedures. Such procedures may vary from program-to-program; however, the following procedures deserve attention.

1. Guidance services are involved in nearly every phase of vocational programs that utilize the cooperative method. Although there should be cooperation between the guidance counselors and the teacher-coordinator, the primary responsibility of enrollment, placement, and follow-up rests with the teacher-coordinator. The effectiveness of the cooperative method is measured in terms of successful training and adjustment of the students enrolled in the program.
2. The teacher-coordinator should use a variety of methods and techniques to inform students of career opportunities within the vocational program area and the benefits that accrue to student-trainees. As a result of equal opportunity legislation, care should be exercised to inform students that the career opportunities exist for both females and males. Career opportunities in all fields are likewise available for minorities.
3. Students aspiring to enter the program should submit an application and personal data sheet.
4. The teacher-coordinator should meet with the vocational guidance counselors to examine and validate each applicant's career goal. Results of a battery of tests including multifactor scholastic aptitude, general development or achievement, interest inventories, and one or more general aptitude tests may support the authenticity of the stated career goals.
5. Cumulative records for each applicant should be examined carefully. These records should identify strong and weak subject areas and help authenticate the students' statements of career intent. In addition, attendance patterns, discipline problems, and character traits may be identified.
6. Teacher-coordinators should seek information about applicants from other teachers. Teachers under whom students have had one or two courses may know the applicants quite well.
7. Personal interviews should be a part of the screening process. Students may provide additional information or clarify concerns which will justify admission into the program.
8. Academic ability may be essential to succeed in many business positions. The teacher-coordinator must consider the applicant's communicative skills, mathematical skills, etc. Such skills may, of course, be more important for specific vocational areas.

A variety of problems may be faced as the teacher-coordinator strives to select student-learners with appropriate career objectives. Some of the typical problems include:

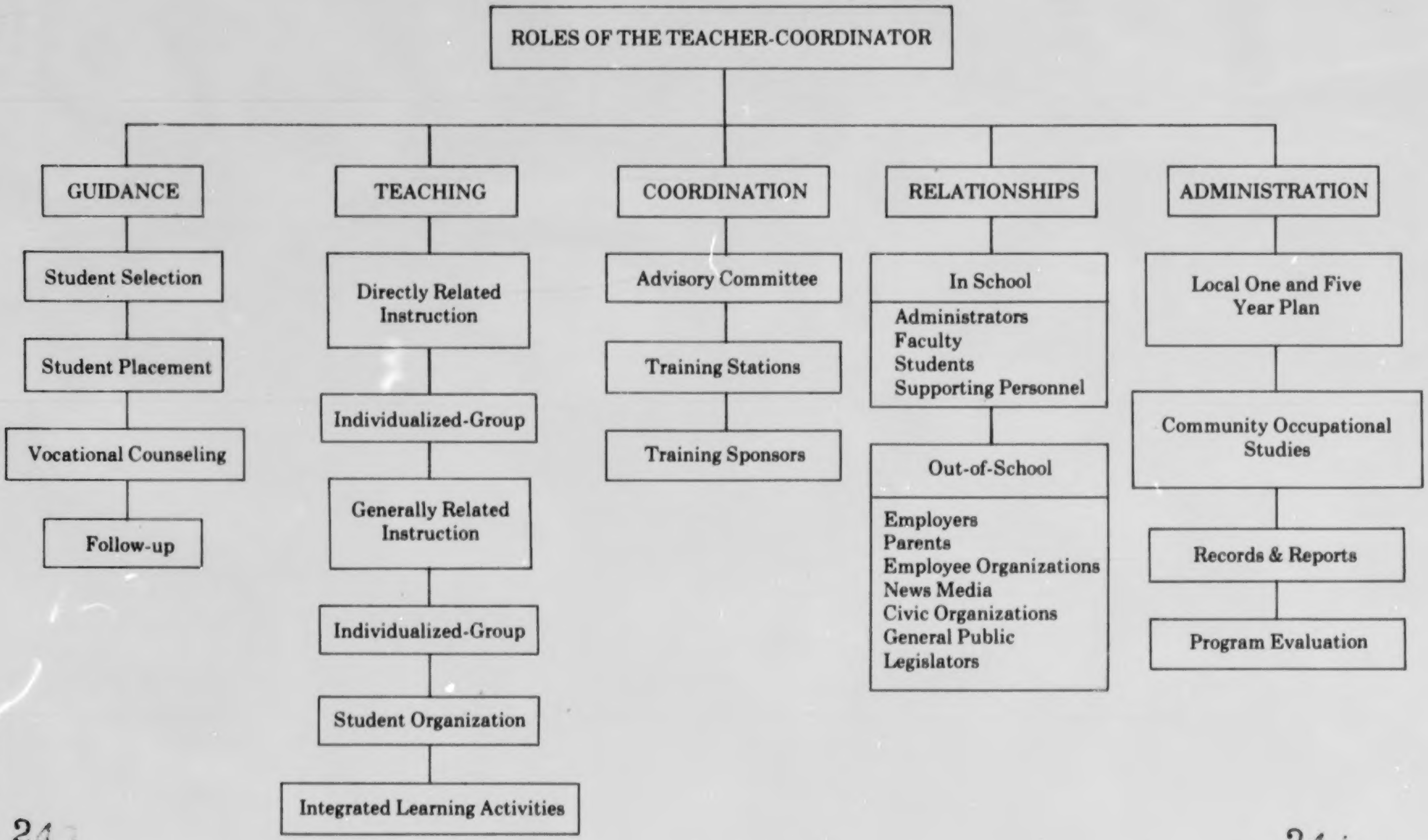
pressure from various individuals to accept a student regardless of career interest or qualifications.

school policies that dictate quotas.

students accepted into the program and later find they have a conflict of interest, such as an extracurricular activity.

In addition, teacher-coordinators in area vocational centers may find it difficult to work with feeder schools during the application, screening, and selection period. Such problems must be solved at the local level, and a solution in one setting may fail in another. The guiding principle for accepting students into

Figure 2


ROLES OF THE TEACHER-COORDINATOR
GUIDANCE
Student Selection
Student Placement
Vocational Counseling
Follow-up
TEACHING
Directly Related Instruction
Individualized-Group
Generally Related Instruction
Individualized-Group
Student Organization
Integrated Learning Activities
COORDINATION
Advisory Committee
Training Stations
Training Sponsors
RELATIONSHIPS
In School
Administrators
Faculty
Students
Supporting Personnel
Out-of-School
Employers
Parents
Employee Organizations
News Media
Civic Organizations
General Public
Legislators
ADMINISTRATION
Local One and Five Year Plan
Community Occupational Studies
Records & Reports
Program Evaluation

programs using the cooperative method may be stated as follows: *It is necessary to have students who want, need, and are capable of profiting from the instruction.* For most vocational programs in the business, marketing and management area, students who are capable of profiting from on-the-job and related classroom instruction must have first completed a sequence of preparatory and skill development courses.

Preparatory Curriculum

The Illinois Career Education Model suggests that occupational orientation courses be planned at the ninth- and tenth-grade levels followed by occupational preparation at the eleventh- and twelfth-grade levels. Sequential course offerings at the community college level would, of course, be aimed at occupational preparation.

Variations of planned sequential course offerings for programs in business, office, and marketing education will exist between communities and school districts. The important guideline is that competencies needed to enter and advance in career fields be identified and included in preparatory courses. The knowledges, skills, and attitudes needed may be developed through a variety of learning activities. Actual on-the-job learning experiences are one method of enabling students to acquire competencies. However, it is not the only method, and it cannot succeed in isolation. A variety of teaching/learning methods and tools are utilized in the sequential course offerings forming a career path.

An important task to be achieved during the decade of the 80's is the elimination of school-work programs that are incorrectly disguised under the label of on-the-job training using the cooperative method. Unless sequential courses and related instruction support the cooperative method, the students are likely to be exposed to work experience as opposed to occupational training.

While most vocational programs in business and office and marketing and distributive education utilizing the cooperative method seek to prepare well trained and knowledgeable employees, some students who might profit from such programs are being attracted by less demanding work-related school offerings. Therefore, it becomes the responsibility of all educators in business to insist that preparatory curriculums be planned that truly develop the knowledge, skill, and attitudinal competencies needed for occupational success.

Selected Training Station

Training stations should be selected for their educational value as a realistic teaching/learning laboratory. A willingness to provide employment for a student-learner is not enough—opportunity for on-the-job learning experiences must exist.

To ensure the selection of training stations that promise acceptable on-the-job learning activities and experiences, the teacher-coordinator should establish criteria to guide the process. The program area advisory committee may assist in this endeavor.

Items typically used as selection criteria include the following:

1. Employer attitudes—He/she understands and accepts the purposes of the cooperative method.
2. Variety of on-the-job learning activities—The training station will provide on-the-job learning experiences in various facets of the occupation. Routine work experience of a repetitive nature will be avoided to the extent possible.
3. On-the-job instruction—An individual who is competent in the skills and technical aspects of the occupation, interested in young people, and who will cooperate with the teacher-coordinator will be assigned as training sponsors.
4. Working conditions—The working conditions within the training station shall be free of occupational hazards that might impair either the health or safety of employees.
5. Reputation—The training station is a reputable organization that adheres to ethical practices.
6. Hours of employment—The training station will offer a sufficient number of working hours and refrain from imposing excessive hours that jeopardize the student's progress in school or health.
7. Facilities and equipment—Up-to-date facilities and equipment similar to those found in compatible organizations will be used in the training station.
8. On-the-job instruction and supervision—A training sponsor will be selected to work closely with the teacher-coordinator in planning learning experiences and supervising such experiences at the on-the-job training site.
9. Accessibility—Student trainees should be able to travel from the school to the training site and back home safely within a reasonable period of time.
10. Wages—The wage scale should be comparable with that paid to other employees with similar experience and training.

Other salient factors to consider will include the employer's record of compliance with local, state, and federal regulations especially regarding wages, hours, employment conditions, insurance, hazardous occupations, and equal opportunity. An employer unwilling to abide by legislation related to equal opportunity, affirmative action, and other forms of discriminatory practices should not be selected.

Selection of training stations cannot be taken lightly. The success of the cooperative method is to a large degree dependent upon training agencies that will cooperate in providing learning activities that are vital to the achievement of career goals.

Training Agreements and Training Plans

Training Agreements. In its proper educational context, on-the-job training becomes an instructional strategy for meeting instructional objectives and program goals. When the cooperative method is used in a vocational program, it is recognized as an integral part of the instruction and, therefore, merits the same attention that is given to in-school learning experiences.

> The training agreement is a statement of fundamental agreements regarding the participation of a student-learner in a work environment. Initiated by the school, the agreement reflects a voluntary and cooperative commitment on the part of the teacher, employer, and student. Other appropriate parties to the agreement could be parents, advisory committee chairperson, union representative, and school administrators.[6]

Successful utilization of the cooperative method requires the support of certain guiding mechanisms. The training agreement is one of the guiding mechanisms and is essential for a number of reasons:

1. As a planning document, the training agreement sets forth the agreed upon obligations of each party.
2. As an information document, it helps employers appreciate their teaching role and understand the relationship of on-the-job and classroom instruction.
3. As a permanent record, it is useful for subsequent placement services and followup studies.

While training agreements vary from district-to-district, there is usually a general pattern of content which can be outlined as follows:

1. Name of student and pertinent information, such as age.
2. Identification of student's career interest and job title assignment.
3. Length of training period and schedule of hours.
4. Hourly rate and adjustment provisions.
5. Statements of respective responsibilities.
6. Statements of mutual understandings.

Each party should look upon the training agreement as a tool which will facilitate the operation of a quality training program enabling student-learners to reach career objectives. (See Figure 3, page 13)

Training Plans. Virtually all vocational educators seem to agree that a fundamental aspect of the cooperative method is a strong emphasis on planned learning experiences leading to career goals.

> The training plan is a document containing a format for delineating, for each student, the learning experiences and job tasks to be undertaken at the job site, after paralleled with classroom units of instruction.[7]

On-the-job learning experiences should be cooperatively planned by the teacher-coordinator, the employer, the training sponsor, and, hopefully, the student. The plan then serves as a guide for related instruction in the classroom as well as on-the-job.

The first step in preparing the training plan is to make an analysis of the competencies that the student career objective requires. Tentative decisions may then be made as to whether the training station, the school, or both, should provide the learning experiences necessary for the student-learner to acquire each competency.

The method used in developing the training plan should be adapted to meet each situation. Some employers and training sponsors may give the teacher-coordinator considerable help in making the plan. In other cases, the teacher-coordinators may have to do most of the work. Regardless of the method used, the employer, training sponsor, teacher-coordinator, and student must agree upon the contents.

The completed training plan (one for each student) is one of the essential elements of an approved program using the cooperative method. The plan should be placed in the student's folder and referred to during instructional planning, coordination visits, and evaluation. Figure 4, on page 14 and 15, shows the typical format used in the preparation of training plans.

On-the-job experiences congruent with educational objectives and sequenced with classroom/laboratory experiences separate vocational programs from other work experience programs. When a training plan serves as a vehicle to guide the training sponsor and the teacher-coordinator, the outcomes from cooperative efforts are likely to yield the desired results in terms of students' career growth.

Adequate On-The-Job Supervision

Selection of the individuals who will teach and supervise students at the on-the-job training station is critical to the quality of the learning experience. While the training sponsor may be the owner or manager of the firm, more often it is a supervisor or experienced employee who can work closely with the student at all times.

The teacher-coordinator should emphasize the need for the employer's cooperation from the outset. Criteria suggested by the teacher-coordinator will prove helpful to the employer in selecting a training sponsor. Some suggested criteria for selection of a training sponsor are:

1. Technical competence in the occupation to be taught.
2. Ability to organize and conduct instruction on-the-job.

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[6] U.S. Department of Health, Education, and Welfare, *Zero in on Cooperative Vocational Education*, Washington, D.C., 1974, page 2.

[7] Ibid.

Figure 3

A Sample Training Agreement For Marketing/Distributive Education

Student Learner ____ Date __________

Training Station ____ Sponsor __________

Probationary Period ______________ wks. Training Period __________ to ______________________

1. This training program is designed to run during the entire school year. The student's on-the-job schedule shall provide for a minimum of 15 hours a week. One period per school day shall be devoted to related study in the school, supervised by the Coordinator of Marketing and Distributive Education. Compliance with applicable laws (Federal, State, and Local) governing employment of student learners will be required.

2. The student learner's work experience will be from _____ to _____ each school day and from _____ to _____ on Saturdays.

3. ____________, student learner, agrees to enter into this training program with ____________, the training agency, and put forth his/her best efforts at all times. The student learner agrees to consult with the Coordinator regarding any complaints. Severance of employment with the training agency shall not be made without first consulting the Coordinator. The student learner agrees to relinquish the job if he/she withdraws from school or the related instruction class. Failure in classwork will cause the student learner to receive failure for entire experience.

4. The student learner will not be permitted to work any day when absent from school. Exceptions are permissible by mutual consent of the employer and the Coordinator.

5. The training agency agrees to pay the student learner _______ per hour. The employer may alter the hourly pay rate of the student learner; however, the Coordinator should be informed. The training agency agrees: to give varied training experience; to follow the schedule of hours listed; to guarantee as work experience a minimum of fifteen hours per week; to first consult with the Coordinator prior to dismissal of the trainee; to permit student learner to attend normal functions of his/her senior year, a list of which will be provided early in the year.

6. The parents of the student learner agree: to be responsible for the action of the student learner while he/she is employed by the above named training agency; to channel any complaints through the Coordinator of Marketing and Distributive Education.

7. The Coordinator agrees: To periodically observe the student learner on the job to assure himself/herself that the agreed upon schedule is being adherred to; to hear complaints and to take the necessary action in reaching a suitable solution to such complaints. He/she also agrees to give required related instruction in keeping with available resource and instructional materials and physical facilities.

8. The training may be discontinued at any time by any person signing this agreement, but each agrees to notify the other parties in advance.

______________________________ ______________________________

Employer Student

______________________________ ______________________________

Coordinator Parent or Guardian

Figure 4

Training Plan for Cooperative Office Education Program (U.S.O.E. Code 14.0300)[a]

The (Name of Business Firm) will permit (Name of Student) From (Name of School) High School to enter their establishment as an employee under the supervision of (Name) for the purpose of gaining knowledge and experience in the occupational area of 14.0300—Filing, Office Machines and General Office Clerical Occupations so that the student may prepare for a career as a(n) ______________

Approximate Time	Learning Activities	OUT	In School	Evaluation	Study Assignment
3 months	Preparatory Training				
	1. Practice English grammar and mechanics		x		
	2. Practice typewriting skills				
	a. letter styles		x		
	b. legal forms		x		
	c. reports		x		
	d. tabulations		x		
	e. typewriter care		x		
	3. Practice machine use				
	a. transcribing		x		
	b. adding and calculating		x		
	c. duplicating		x		
	4. Perform shorthand dictation and transcription		x		
	5. Observe good grooming		x		
	Transcribing Machine Operation				
	1. Type from tape for				
	a. inquiry letters	x	x		
	b. sales letters	x	x		
	c. transmittal letters	x	x		
	d. information letters	x	x		
	e. inter-office memorandums	x	x		
	f. reports	x	x		
continuous	Typewriting				
	1. Type form letters	x	x		
	2. Complete forms	x	x		

	3. Prepare policies from application	x	x		
	4. Compile statistical material from rough draft	x	x		
	5. Type envelopes	x	x		
as needed	Communications Activities				
	1. Discuss job-related problems with supervisor or the dictator	x			
	2. Compose routine letters	x	x		
continuous	Work Organization				
	1. Establish priorities for work	x	x		
	2. Assemble materials and necessary forms before typing	x	x		
	3. Proofread and correct own work	x	x		
	4. Examine all papers for completeness and conformance to rules	x	x		
	5. Correct dictation if not grammatically correct	x	x		
	6. Put finished copy in order	x	x		
continuous	Safety Precautions in the Office				
	1. Practice safety in connection with				
	a. files and desks	x	x		
	b. all electrical equipment in office	x	x		
	2. Keep walking areas cleared	x	x		
	3. Use equipment with cutting edges or puncturing heads, such as paper cutters, staplers, shredders, etc., properly	x	x		
as needed	Miscellaneous Duties				
	1. Handle dictation tapes according to company procedures	x			
	2. Acquire, store, and use supplies according to company procedures	x			

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[*] White, Thomas R., *Business and Office Education Training Plans*, Indiana University at Bloomington, Vocational Education Program Area, 1972, pp. 63-65.

3. Worthy personal traits and work habits which the student can emulate.
4. Ability to communicate and relate to supervisors and co-workers as well as trainees.
5. Interest in and attitude toward training the type of student who will be enrolled.
6. Willingness to work with the coordinator in planning on-the-job learning experiences and related classroom instruction, and in evaluating student progress.

Training a student enrolled in a vocational program that utilizes the cooperative method will be a new experience for many training sponsors. Training sponsors are usually more effective in their roles when given special help by the teacher-coordinator in how to train students. Teacher-coordinators of successful programs seek ways to assist the training sponsor in becoming an effective on-the-job instructor and a true partner in the instructional program.

Since the teacher-coordinator is employed by the local educational agency, he/she has responsibility for the total instructional program. Thus, he/she must endeavor to train supervisors to be better job instructors.

The first step in planning to assist the training sponsor is the identification of responsibilities to be assumed by the training sponsor. The second step involves determining what the sponsor needs to know in order to carry out the identified responsibilities. The final decisions to be made include determining how much should be told at one time, when to tell it, and how to tell it most effectively.

The decisions reached and the techniques chosen will be influenced by the number of new sponsors serving as on-the-job instructors for the first time. Group sessions, conferences, interviews, written memorandums, and other techniques may prove helpful.

Related Instruction

Business organizations provide a wide variety of diverse occupational opportunities. Eleven occupational clusters grouped under business and office education and 21 occupational clusters grouped under marketing and distributive education appeared in a recent Annual and Five Year State Plan for Vocational Education in Illinois.[9] Within each occupational cluster, a host of specific careers may be found. Thus, teachers using the cooperative method face the task of providing instruction that will help each student-trainee achieve those competencies needed for a chosen vocation regardless of the diversity of career goals students represent.

Prior to the point in the preparatory curriculum where the cooperative method is utilized, students are enrolled in courses that develop common skills, knowledges and attitudes. For example, students pursuing office careers develop skills in operating office machines, and acquire knowledge of related rules, regulations, and technology. Students pursuing careers in accounting develop accounting skills and knowledges; students interested in marketing careers acquire a knowledge of basic marketing principles and develop accompanying skills. However, the occupation training offered in training stations through the cooperative method and the related in-school instruction must necessarily become specialized in terms of the career objective of each student.

One of the greatest problems that teacher-coordinators encounter is that of keeping the instruction germane to the circumstances with which students are personally involved. This problem does not refer to the correlation requirement for directly related instruction. It does, however, point out the danger of presenting generally related instruction out of context with reality. The training plan must be a guide for planning in-school instruction just as it is a guide for on-the-job instruction.

Instruction which is common to all students does not present an organization problem. Instruction designed to help students acquire social skills or basic skills may be presented in either large or small group settings. The real problem is how to plan and effectively present instruction which is unique to a small group or to an individual student. Fortunately, great strides are being made in the development of such instructional materials. Curriculum material centers, consortium dissemination centers, and clearing houses for federal and state funded curricular projects are now supplying quality instructional materials for use by vocational students. Such materials may be selected for use with small groups or individual students.

Suitable Classroom/Laboratory Facilities and Instructional Materials

Instructional facilities should consist of classrooms and fully equipped laboratories where pre-employment skills may be taught and where instruction related to on-the-job training may be correlated as closely as possible with the actual on-the-job environment. Equipment for the laboratory facilities should be reflective of specific instructional programs, student needs, and community needs.

Unfortunately, some school administrators fail to understand the necessity of providing equipped laboratories. The fact that an on-the-job training station provides a learning environment that contains specialized equipment does not negate the need for instructional equipment. In fact, one of the guiding principles in vocational education may be phrased as follows:

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[9] State Board of Education, *Five Year and Annual State Plan for Vocational Education in Illinois*: Springfield, IL. Department of Adult, Vocational and Technical Education, 1979.

> Conditions under which vocational instruction is given should compare favorably with desirable conditions in the occupation concerned.

As new classroom/laboratory facilities are planned and existing facilities renovated, planners should adhere to the following statements:

1. Facilities should be reflective of the nature of specific instructional programs, the students, and the community.
2. Facilities and equipment should be comparable to those found in businesses where students will secure employment.
3. Sufficient classroom/laboratory space should be provided to meet curricular and enrollment needs including specialized laboratories.
4. The teacher-coordinator should be provided with adequate and appropriate office space, equipment and working facilities, and a private area for counseling with students.
5. Adequate, convenient space should be provided for the safe storage of instructional equipment and instructional materials.
6. Climate control and lighting should be appropriate for health and safety.
7. Ample electrical outlets should be located to facilitate the work of the classroom without being a safety hazard.
8. Plans and budget provisions should allow for an annual review, replacement, and addition of instructional equipment and materials as a part of long-range commitments.[10]

Instructional material should be up-to-date and consistent with the stated career goals of students. A number of other considerations should be weighted as instructional materials are reviewed.

1. Instructional materials must be free of sex stereotyping and racial bias as well as other forms of discrimination.
2. A budget should be provided for consumable supplies and updating of instructional materials.
3. Instructional materials should reflect divergent, new and emerging business, office, and marketing occupations.
4. Instructional materials should be provided for simulated occupational experiences which are performed under conditions as much like those in the real world of work as possible.
5. Instructional materials should be appropriate for the divergent individual abilities of the students and for individualized instruction.
6. Appropriate audio visual materials should be available.
7. Current issues of newspapers, trade magazines, business and government publications, and other reference materials should be available for student use.
8. Materials such as business forms, handbooks, training manuals, charts, and other business material should be available.

Adequate Coordination Time

"Coordination" is a term which connotes different meanings for different individuals. Some individuals look at coordination as a process that includes only those activities associated with visits to the training station. Authorities usually look at coordination as a process of building and maintaining harmonious relationships among all individuals involved with the cooperative method of preparing youth for careers.

This viewpoint would include all activities carried out by the teacher-coordinator with the exception of classroom teaching.

The fact is that teacher-coordinators must accept many additional responsibilities if the cooperative method of instruction is to prove effective. Adequate time must be provided if the teacher-coordinator:

1. works with members of the advisory commitee to insure that all components of the instructional program are sensitive to the occupational environment.
2. assists students in refining their career objectives and then identifies needed competencies for that career.
3. develops an appropriate training station for each student.
4. orients the training sponsor to the cooperative method of instruction.
5. works with the employer, training sponsor, and other individuals with occupational expertise to develop training plans for each student.
6. carries out needed community public relations activities.
7. makes periodic visit to each training station to insure coordination of classroom and on-the-job instruction, to solve problems, to observe the student-learner in the work environment, to consult with the training sponsor, and to evaluate.
8. keeps well organized records.
9. serves as the advisor for a viable student organization that is an integral part of the total instructional program.

The accepted rule-of-thumb for determining the amount of time to be assigned for coordination activities is one-half hour per student per week. In other words—30 students equal 15 hours of coordination time each week. However, additional factors may contribute to the need for additional coordination time. For example, teacher-coordinators employed in large rural consolidated schools or area vocational centers may be faced with employers in diverse geographical locations.

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[10] Standards for classroom/laboratory facilities are based on evaluative criteria published by National Study of School Evaluation.

It is recommended that teacher-coordinators of business occupations be placed on an extended contract. The extended portion of the contractual agreement may cover one or two months of summer employment as determined by the workload. The extended employment period will enable the teacher-coordinator to devote needed time to planning, selection of training station, development of training sponsors, and follow-up activities.

Well Defined School Policies Regarding the Program

A policy may be defined as a standing procedure or a standing method. At some time, of course, each standing procedure or standing method must be formulated. Once established, however, they become the guides to insure desired and uniform action. Successful teacher-coordinators can readily cite the need for policy statements that spell out practices to be followed.

Policies may be formulated to guide action in almost every component of the program. However, standing procedures or methods are more likely to be designed to alleviate problem situations. For example, when on-the-job training schedules vary from day-to-day for a particular student—a policy may spell out where the student is to spend the unscheduled time. Often, the teacher-coordinator may wish to establish policies governing the maximum number of hours students may work each week and similar operational guides. The program area advisory committee can often suggest policies that should be implemented. However, the actual approval of policies can only be passed by the local board of education.

A loose-leaf notebook makes the compilation of a policy manual easy. All parties to the cooperative method should have a copy of policy statements. Such statements should be reviewed periodically to insure their adequacy. Policy statements may prove especially helpful when practices and procedures are challenged.

Adherence to Federal and State Regulations

Teacher-coordinators should obtain copies of the latest state and federal regulations for themselves and for training stations. While an employer may be responsible for enforcing state and federal regulations, the teacher-coordinator is responsible for the total program and should take steps to make sure labor laws are not violated.

Specific regulations to be considered include the following:

Fair Labor Standards Act
Federal Hazardous Occupational Orders
Federal Wage and Hour Law
Illinois Child Labor Law
Illinois Minimum Wage Law
Occupational Safety and Health Act

For the protection of student-learners as well as employers, teacher-coordinators at the secondary level should insist that proof of age certificates be supplied to employers. While most post-secondary students have reached the age of eighteen, the teacher-coordinator should, nevertheless, exercise sensitivity and alertness to regulations. If a questionable situation is encountered, the teacher-coordinator should contact state or federal labor departments for written clarification.

Well Organized Program Records

In addition to those forms and records which must be assembled by all teachers, vocational teachers must keep and use a variety of other forms and records. This is especially true for teachers using the cooperative method. Figure 5, page 19, shows sample folders for employers or training sponsors, the teacher-coordinator and the training sponsor.

The basic records contained in each of the folders serve an essential purpose in the successful vocational program that utilizes the cooperative method. In addition, such records may be needed to substantiate vocational reimbursement claims.

Additional program records as well as other items should be filed. Among the items to be included will be the following:

1. Membership List (Youth Organization for your occupational area)
2. Letter from parent of Jack Student
3. Brochure announcing Spring Convention for the Illinois Vocational Association
4. Minutes for the advisory committee meetings.
5. Equipment Requisition Forms
6. Field Trip procedures
7. Current Advisory Committee membership list
8. District One and Five Year Plan
9. Original class enrollment lists
10. Faculty Handbook
11. Student Handbook
12. Master Schedule of Building
13. Memo from nurse listing names of students with health problems
14. Notice of University Extension Course to be offered in community
15. Equipment inventory
16. Supply inventory
17. Procedures for requesting A-V equipment
18. Department budget
19. Owners Manual for typewriter
20. Preventive Maintenance Schedule for equipment

Figure 5

SAMPLE FOLDER FOR EMPLOYER OR TRAINING SPONSOR[11]

NAME

1. Student's application
2. Data sheet
3. Training agreement
4. Training plan
5. Parent's name
6. Parent's home address
7. Parent's business address

EMPLOYER RECORD

8. Home phone
9. Business phone
10. Evaluation reports
11. Teacher-coordinator's name, address, phone
12. Work permit (if needed)
13. Social Security number

SAMPLE FOLDER FOR TEACHER-COORDINATOR'S RECORDS ON EACH STUDENT

Student's Name
(Last) (First) (Middle)

1. Application for co-op course
2. Personal data sheets
3. Career objective material
4. Data relative to high school curriculum, etc.
5. Teacher rating forms, etc.
6. Training program agreement
7. Teacher-coordinator visitation reports
8. Training sponsor reports
9. Evaluation
10. Other pertinent data
11. Training plan

(confidential)

TEACHER COORDINATOR'S FOLDER

Student Social Security number—
Student address—

Home phone—
Parent's name—
Parent's business address—work area

Parent's business phone—
Other pertinent data—

SAMPLE FOLDER FOR STUDENT'S RECORDS AND OTHER INFORMATION

NAME

1. Training plan
2. Work schedule
3. Progress chart
4. Time sheets
5. Weekly earnings
6. Pertinent information relative to work station
7. Training agreement
8. Copy of student's birth certificate

STUDENT'S FOLDER

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[11] State Board of Education, *Handbook for Cooperative Vocational Education in Illinois*, Springfield, IL, Department of Adult, Vocational and Technical Education, p. 46.

Dedex is a simple, comprehensive filing system for marketing/distributive education program records. The color-coded Dedex system is suitable for either secondary or post-secondary programs. The filing system may be obtained from:

Instructional Materials Laboratory
University of Missouri-Columbia
Columbia, MO 65201

Many teacher-coordinators of business, office, and marketing education develop Alphabetic Filing Systems or Subject Filing Systems for the storage and retrieval of program records. The important point is that regardless of the filing system chosen, program records must be maintained in a well organized system.

An Effective Public Relations Program

Programs designed to prepare students to enter and succeed in business occupations need support from various target groups. This is especially important when the cooperative method is used in the program of instruction.

Good public relations revolve around and stem from the teacher-coordinator. It is his/her responsibility to initiate an active information program designed to inform target groups about the program. Well informed groups form favorable images of vocational programs and interact in ways that enhance and improve such programs.

An early step in a public relations program is to identify the publics to be reached. The teacher-coordinator must reach school administrators, the school teaching staff and guidance personnel, and students. Employers are an obvious target group. Parents have a tremendous impact on plans formulated by students. Other community leaders and taxpayers are interested in the school's instructional programs and how their tax dollars are being expended. Finally, the support or lack of support directed at vocational legislation by area representatives may, to a large extent, be influenced by area vocational programs.

Because the teacher-coordinator must assume so many responsibilities, it may be wise to plan some public relations activities before school gets underway. A long range plan will help to assure that public relations activities are not jeopardized because of the press of other work activities. Figure 6, on page 21, illustrates a sample public relations calendar.

To implement a public relations program, the following guidelines may prove helpful:

1. Effective use of Media
    a. All communication media should be utilized to publicize instructional program.
    b. News is not planned. Reporters, newscasters, feature writers, and other public information officials are antagonized by deliberate attempts to "advertise" in their media. If news occurs, call the education writer or editor in the respective media. At the same time, prepare a news release to give to him/her when he/she arrives. Let the newsperson decide whether or not to include pictures. Invite him/her to look through your files to select pictures which might relate to the publicity.
    c. Involve only those parties who make the news in the news story. Do not attempt to "tell" the newsperson what to write.
2. Feature Stories—During the year, the teacher-coordinator should write or have written feature stories about the instructional program. These should be submitted as "exclusives" to selected media, such as radio, television, newspaper, business periodicals, and trade publications.
3. Reports to Faculty and Administration—Inform the faculty and administration about all news in the instructional program. This can be done through a weekly newsletter and an end-of-the-year annual report about the program.
4. Public Relations for Parents—Parents can be the biggest boosters of the program. Prepare a printed newsletter every two weeks and mail to the parents of the student-trainees. The newsletter should include general news about the program and personal notes of interest.
5. Business Awards—Initiate "outstanding student" or "student of the year" awards through the organizations in the community which contribute to the success of the program.
6. Alumni Group—Organize graduates from the program into an alumni group. The teacher-coordinators should attend their meetings and serve as advisors to these groups.
7. Additional Information Material—Additional material telling about the entire program should be prepared and presented to interested groups of individuals. This material could be in the form of printed brochures, films, slides, or radio tapes.

A Viable Vocational Student Organization

Long considered an integral part of vocational education, the student organization as a component of the total instructional program was illustrated earlier in Figure 1. The educational values derived from student organizations are recognized as essential to the total development of student-learners. In fact, the definition of the cooperative method presented at the beginning of this section noted that certain competencies are developed through the program of work set up by the vocational student organization.

The Department of Adult, Vocational and Technical Education, within the Illinois State Board of Education, has a student organization consultant for each of the organizations in the field of business. These consultants may assist teacher-coordinators in the implementation and operation of student organizations.

Figure 6
Plan A Public Relations Calendar[12]

SEPTEMBER

Plan orientation for new students and teacher

Renew acquaintance with newspaper editor and reporters, radio and TV program managers

Send news releases on expansion, new projects, new equipment

Send materials explaining cooperative vocational education to parents of new students

Plan home visitations schedule

Complete the student organization plans for the year and publicize through newspaper and school paper

Set up advisory committees and plan schedule of meetings

Participate in workshop on public relations

NOVEMBER

Build the public relations activities around American Education Week; participate in all events planned by school

Plan and conduct a radio or TV program explaining purposes, organization, and values of cooperative vocational education

Prepare displays for public places to illustrate instructional content of cooperative vocational education

Invite state and federal legislators to visit and observe the vocational program

Plan bulletin board displays

JANUARY

Plan and conduct a student assembly program

Publicize plans for adult vocational classes for second semester

Participate and cooperate in career conferences

Hold Open House for parents and other citizens of the community

Send articles about vocational education to trade papers and professional journals

Speak to local service clubs and other community organizations about the values of cooperative vocational education

Prepare newspaper articles on progress of vocational students

MARCH

Provide information about vocational courses to students who may desire to enter cooperative vocational education; make arrangements for tours of the department

Plan a parents' night program for students to demonstrate their work and activities

Send newsletter to graduates and former students

Cooperate in planning exchange visits for teacher, industry and business, and labor groups

Invite the administration to attend a student organization meeting

Work with school reporter on writing a series of features about successful vocational graduates for school and/or local newspaper

Collect occupational information and give to school guidance counselor

Call on photography class to take photos of the students in action

MAY

Make plans for participating and exhibiting at state and county fairs

Contact local business, industry, employment agencies, etc., to help place graduates in suitable jobs

Prepare annual reports

Arrange for appropriate graduation ceremonies and publicity for graduates

Hold banquet for parents and/or employers; show slides of year's activities

Prepare exhibits of students' work for display in businesses

Evaluate results of year's public relations projects

JULY

Attend summer school or workshop on public relations

Attend state conferences

Participate in county and state fairs

Visit parents of students and prospective students

Take summer job in industry

Make plans for next year's public relations

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[12] State Board of Education Handbook for Cooperative *Vocational Education in Illinois*, Springfield, IL., Department of Adult, Vocational and Technical Education, p. 46.

Student organization manuals, handbooks, and other sources of information may be obtained from the national offices for each student organization. Distributive Education Clubs of America (DECA) provides membership divisions for secondary and junior college students pursuing careers in marketing and distributive occupations. A collegiate division of DECA serves pre-service teachers.

Distributive Education Clubs of America
1908 Association Drive
Reston, VA 22091

Future Business Leaders of America (FBLA) serves students interested in business occupations who are enrolled in secondary schools. Phi Beta Lamda (PBL) is the companion organization attracting students from the post-secondary level.

Future Business Leaders of America
Dulles International Airport
Post Office Box 17417
Washington, DC 20041

Office Education Association (OEA) has divisions to serve secondary and post-secondary students interested in office occupations. A collegiate division of OEA draws membership from students enrolled in vocational business teacher education.

Office Education Association
1120 Morse Road
Columbus, OH 43229

In order to focus on ways of integrating student organization activities into the instructional plan, attention should be given to the areas of personal growth. Eight goals which are common to each of the above student organizations include:

Leadership and Followership
Citizenship Responsibilities
Character Development
Social Development
Occupational Knowledge
Recognition
Communication Skills
Cooperation

The above goals may be achieved through a variety of activities and projects. The teacher-coordinator as an advisor to the student organization should consider the value that planned activities and projects will have for each student.

Student organization activities and projects may be classified into the following broad areas:

Professional
Civic
Service
Social
Financial

Properly conducted, educational activities within the broad areas will strengthen classroom, laboratory, and on-the-job instruction. When students emerge from participation in activities with a better comprehension of the free enterprise system and a broader understanding of their responsibilities to society in a free, competitive economy, the program of student activity will have served a worthwhile purpose.

Summary

In addition to the essential elements for operating successful vocational programs that utilize the cooperative method, the teacher-coordinator will find periodic evaluations an essential process for program improvement.

Follow-up studies will, to an extent, reveal information about the effectiveness of the program. Self-evaluations may also uncover strengths and weaknesses. However, on-site visitations by external evaluators should provide insights for improving essential elements.

The Role of the Teacher-Coordinator

Mason and Haines identify a teacher-coordinator as:

> ...a teacher who must be among the best.
>
> ...a public relations representative from the school who may come into contact with more important taxpayers and voters than the superintendent.
>
> ...a counselor who deals firsthand with educational, social, occupational, and personal problems.
>
> ...a former occupational practitioner who has a record of successful on-the-job experiences.
>
> ...an administrator who keeps records and reports, engages in planning, arranges the schedules of others, and provides leadership.
>
> ...an evaluator who measures student progress toward verbalized career objectives.[13]

No teacher-coordinator will be perfect; however, a person serving in the capacity or aspiring to the position should be cognizant of the description of an ideal model.

The *Handbook for Cooperative Vocational Education in Illinois* contains a list of essential tasks that should be performed by the teacher-coordinator.[14] The handbook also suggests timelines showing when and how often the task should be performed. It should be noted that the tasks have been divided into eight competency content areas. They are:

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[13] Mason, Ralph E. and Peter G. Haines, *Cooperative Occupational Education in the Curriculum*, Danville, IL: The Interstate Printers and Publishers, 1972, p. 126.

[14] State Board of Education, *Handbook for Cooperative Vocational Education in Illinois*, Springfield, IL: Department of Adult, Vocational and Technical Education, pp. 10-19, (citing *A Competency-Based Coordinator's Manual*, by staff, Columbia Heights School District, White Bear Lake, MN).

(1) administration
(2) guidance
(3) management
(4) professional development
(5) instruction
(6) vocational student organizations
(7) coordination
(8) school community relations

Thus, a quick glance at areas in which the teacher-coordinator must perform essential tasks will correctly lead to the conclusion that teachers using the cooperative method must fill many roles.

The essential tasks and suggested timelines appear on pages 24-31. The list can serve a worthwhile purpose for teacher-coordinators. First, teacher-coordinators may compare the actual tasks they are performing against a list that is considered essential. Secondly, the list can serve as a guide for inexperienced coordinators in planning their monthly, weekly, and daily activities. Finally, the list should prove valuable as the teacher-coordinator prepares his/her own job description.

TEACHER-COORDINATOR COMPETENCY AREAS
Program Planning, Development, and Evaluation

ESSENTIAL TASKS	TIMELINES											
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
ADMINISTRATION												
1. Submit ideas for expansion, revision, or modification of current program as prescribed by the district.	x	x	x	x	x	x	x	x	x	x	x	
2. Work with the school officials in developing suitable and appropriate procedures for the program.	x	x	x	x	x	x	x	x	x	x	x	
3. Review planning and evaluation methods and procedures utilized during the past year.	x	x	x	x	x	x	x	x	x	x	x	
4. Collect student occupational interest data through application forms and interviews.						x	x	x	x	x	x	
5. Provide input into the local one-and-five year identification and development plan for vocational education.	x	x	x	x	x	x	x	x	x	x	x	
6. Help assure that the occupation for which training is to be offered in the vocational education program is based on employment opportunities and student interest. Consult with various government manpower agencies such as CETA (Comprehensive Employment Training Act), Illinois Employment Service, and Division of Vocational Rehabilitation.	x	x	x	x	x	x	x	x	x	x	x	
7. Identify the competencies needed for employment into an occupation.	x	x	x	x	x	x	x	x	x	x	x	
8. Develop standards for student performance goals as specified in the training plan.	x	x	x									
9. Assess the relevancy of course offerings.	x	x	x	x	x	x	x	x	x	x	x	
10. Assess the adequacy of the facilities and equipment and make recommendations for changes and improvements.						x	x	x	x	x	x	
11. Participate in the plan for follow-up of students on a one, three, and five year basis.		x	x	x								
12. Secure suggestions in establishing standards for training station selection, occupation competencies, and needs in skills and knowledge of trainees assuring that all are free of sex bias.	x	x	x	x	x	x	x	x	x	x	x	
13. Work cooperatively with guidance staff, employers, teachers, and school suvport staff to determine the reasons for a student dropout of cooperative education.		x	x	x	x	x	x	x	x	x	x	
14. Review supervisory evaluation reports for assessing cooperative education and obtaining feedback.	x	x	x	x	x	x	x	x	x	x	x	
15. Plan the Advisory Committee meetings for the school year, agenda, keep minutes, and write report.		x				x				x		
16. Orient the Advisory Committee members to their role and function.		x				x				x		
17. Collect occupational data from employers to identify needs.	x	x	x	x	x	x	x	x	x	x		
18. Exchange observational visits, innovations, and ideas with other teachers.	x	x	x	x	x	x	x	x	x	x		
19. Participate in experimental and other data collecting activities.	x	x	x	x	x	x	x	x	x	x		
20. Invite resource persons who can provide consultation service to attend Advisory Committee meetings.		x				x				x		
21. Consult the local Illinois Employment Service Office to obtain information on manpower trends and needs.	x	x	x						x	x	x	

ESSENTIAL TASKS	TIMELINES											
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
GUIDANCE												
1. Have students complete cooperative vocational edcuation applications and arrange for personal interviews.					x	x	x	x	x	x		
2. Conduct individual interview with students interested in and desiring a cooperative education experience.						x	x	x	x	x		
3. Consult with counselors, administrators, and teachers about students entering cooperative education.	x	x				x	x	x	x			
4. Orient students and interested parents to all facts of cooperative education including: expectations, policies, procedures, evaluation, and all other pertinent aspects.	x	x					x	x	x	x		
5. Help each student adjust to the work environment as well as make necessary personal adjustments.	x	x	x	x	x	x	x	x	x	x	x	
6. Analyze students' cumulative records and learn as much as possible about each student's background and environment to provide the most meaningful learning experiences assuring that all vocational options remain open.	x	x	x	x	x	x	x	x	x	x		
7. Confer with a student and possibly the parents regarding the student's educational and personal development.	x	x	x	x	x	x	x	x	x	x		
8. Confer with the guidance counselor for administration and interpretation of personality, aptitude, intelligence, and interest inventories tests for specific students.		x	x	x	x	x	x	x	x	x	x	
9. Confer with parents, trainees, teachers, and administrators regarding any discipline problem or disciplinary action.	x	x	x	x	x	x	x	x	x	x	x	
10. Counsel with students having problems in classes and try to help them identify and solve the problems.		x	x	x	x	x	x	x	x	x		
11. Help students to rearrange class schedules, if needed.	x	x	x	x		x	x					
12. Work with counselors or individually provide assistance for students in realistic career planning and decision-making based on student's interests and abilities.	x	x	x	x	x	x	x	x	x	x	x	
13. Meet periodically with individual trainees to discuss performance, progress, problems, and career plans.	x	x	x	x	x	x	x	x	x	x	x	
14. Make parental contact as needed and keep anecdotal record in student's file.	x	x	x	x	x	x	x	x	x	x		
15. Refer students to the guidance counselor and other specialists, if necessary.		x	x	x	x	x	x	x	x	x		
16. Work with other teachers to help students expand their scope of development or with individual problems.		x	x	x	x	x	x	x	x	x		
17. Have available and present to students information on occupational opportunities, post-high school training, and other educational opportunities.	x	x	x	x	x	x	x	x	x	x	x	
18. Maintain an open-door policy for student consultation.	x	x	x	x	x	x	x	x	x	x	x	
19. Assist in scheduling students for the program and providing special assistance as needed.	x	x	x	x	x	x	x	x	x	x	x	
20. Help students reassess their career goals and commitments.	x	x	x	x	x	x	x	x	x	x	x	

ESSENTIAL TASKS	TIMELINES											
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
21. Plan and execute orientation day activities for students in 7th through 11th grade.	x					x	x					
22. Assist students in securing and in filling out applications for employment, scholarships, educational loans, or college admission.	x	x	x	x	x	x	x	x	x	x	x	
23. Write letters of recommendation for students seeking employment or admission to institutions for further education.	x	x	x	x	x	x	x	x	x	x	x	
24. Assist graduates or seniors in preparing for interviews with potential employers.	x	x	x	x	x	x	x	x	x	x	x	
25. Develop student work-related characteristics so that they may be successfully employed.	x	x	x	x	x	x	x	x	x	x	x	
26. Conduct home visitations and/or parental conferences to assist in the development of each student.	x	x	x	x	x	x	x	x	x	x	x	
MANAGEMENT												
1. Maintain file on each student indicating progress in school and on the job.	x	x	x	x	x	x	x	x	x	x	x	
2. Analyze records and reports.	x	x	x	x	x	x	x	x	x	x	x	
3. Follow up student attendance to school policy.		x	x	x	x	x	x	x	x	x	x	
4. Keep a file of instructional materials.	x	x	x	x	x	x	x	x	x	x	x	
5. Maintain objective student files concerning attitudes, grades, and personal and work habits.	x	x	x	x	x	x	x	x	x	x	x	
6. Process and record evaluations of classroom instruction according to school policy.		x	x	x	x	x	x	x	x	x	x	
7. Process training station evaluations received from training sponsors and record according to school policy.			x	x	x	x	x	x	x	x	x	
8. Maintain an inventory of equipment and instructional materials.	x	x	x	x	x	x	x	x	x	x	x	
9. Complete reports necessary for vocational reimbursement requested by the vocational director.	x	x	x	x					x	x	x	
10. Specify the facility and requisition equipment and supply needs.								x	x	x	x	
11. Recommend reference books and periodicals to be added to the library.		x	x	x	x	x	x	x	x	x	x	
12. Arrange laboratory areas to facilitate student work performance.	x	x	x	x	x	x	x	x	x	x	x	
13. Identify and recommend equipment needed.	x	x	x	x	x	x	x	x	x	x	x	
14. Prepare a capital outlay budget proposal.					x	x	x	x				
15. Implement the instructional budget for the coming year to meet designated timelines.					x	x	x	x	x			
16. Make an annual report of the program.										x	x	
17. Consult the vocational directors regarding observations, problems, and questions.	x	x	x	x	x	x	x	x	x	x	x	x
18. Attend scheduled departmental and other school meetings.		x	x	x	x	x	x	x	x	x	x	
19. Formulate and implement acceptable standard of behavior in classroom and laboratories.		x	x	x	x	x	x	x	x	x	x	
20. Encourage students to exercise self-discipline.		x	x	x	x	x	x	x	x	x	x	
21. Carry out approved discipline action when warranted.		x	x	x	x	x	x	x	x	x	x	

ESSENTIAL TASKS	TIMELINES											
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
PROFESSIONAL DEVELOPMENT												
1. Attend district workshops, meetings, and seminars.	x	x	x	x	x	x	x	x	x	x		
2. Attend state-called meetings and workshops.	x	x	x	x	x	x	x	x	x	x	x	x
3. Support professional organizations through membership and attendance at meetings.	x	x	x	x	x	x	x	x	x	x	x	x
4. Maintain professional certification through enrolling in graduate, extension, and in-service education programs.	x	x	x	x	x	x	x	x	x	x	x	x
5. Acquire occupational skills needed to keep pace with technological advancement in one's teaching field.	x	x	x	x	x	x	x	x	x	x	x	x
6. Assist teachers in understanding cooperative education policies.		x	x	x	x	x	x	x	x	x	x	
7. Expand educational background and leadership potential by achieving advanced degrees.	x	x	x	x	x	x	x	x	x	x	x	x
8. Update professional personnel file.	x				x	x				x		
9. Maintain liaison with union officials and employers.	x	x	x	x	x	x	x	x	x	x	x	
10. Provide opportunities for potential teachers to observe and participate in cooperative education.		x	x	x	x	x	x	x	x	x	x	
11. Interpret the policies and regulations of the local school district to the student teacher.		x	x	x	x	x	x	x	x	x		
12. Plan activities for the student teacher which draw upon and enrich college course work.		x	x	x	x	x	x	x	x	x	x	
13. Assign responsibilities to the student teacher commensurate with his or her background of knowledge and experiences.		x	x	x	x	x	x	x	x	x	x	
14. Demonstrate pedagogical skills for student teachers.		x	x	x	x	x	x	x	x	x	x	
15. Consult regularly with the student teacher regarding planning, execution, and evaluation of teaching.		x	x	x	x	x	x	x	x	x	x	
16. Confer regularly with the student teacher regarding performance in the student teaching situation.		x	x	x	x	x	x	x	x	x	x	
17. Confer with the college supervisor and the student teacher regarding plans for and evaluation of the total student teaching experience.		x	x	x	x	x	x	x	x	x	x	
INSTRUCTION												
1. Develop a format and instructional plans for the classroom phase of cooperative education.		x	x	x	x	x	x	x	x	x	x	
2. Follow the plans and timelines for the instructional program.	x	x	x	x	x	x	x	x	x	x	x	
3. Review and update the general objectives for the program.	x	x	x	x	x	x	x	x	x	x	x	
4. Identify the unit topics for classroom instruction.	x	x	x	x	x	x	x	x	x	x	x	
5. Determine objectives for instruction.	x	x	x	x	x	x	x	x	x	x	x	
6. Identify and develop content for instruction.	x	x	x	x	x	x	x	x	x	x	x	
7. Correlate content of instructional units with training station learning experiences and student career goals.	x	x	x	x	x	x	x	x	x	x	x	
8. Expand related instruction on the basis of information obtained on new technology.	x	x	x	x	x	x	x	x	x	x	x	

ESSENTIAL TASKS	TIMELINES											
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
9. Review student goals developed for the training station learning experiences.			x	x	x	x	x	x	x	x	x	
10. Implement methods of evaluation of student performance.		x	x	x	x	x	x	x	x	x	x	
11. Devise performance measures to evaluate student progress.		x	x	x	x	x	x	x	x	x	x	
12. Conduct classroom activities utilizing methods to meet individual student needs.		x	x	x	x	x	x	x	x	x	x	
13. Utilize learning activities appropriate for the objectives, content, and students.	x	x	x	x	x	x	x	x	x	x	x	
14. Direct students in using the business community as a resource and learning environment.	x	x	x	x	x	x	x	x	x	x	x	
15. Develop activities to challenge capable students and those persons with special learning difficulties.		x	x	x	x	x	x	x	x	x	x	
16. Arrange to give students feedback on classroom performance. (Evaluation reports, individual conferences, comments from other teachers.)		x	x	x	x	x	x	x	x	x	x	
VOCATIONAL STUDENT ORGANIZATIONS												
1. Develop a plan for the local organization.	x	x	x							x	x	
2. Acquaint prospective members with the purposes, activities, and values of the organization.	x	x							x	x	x	
3. Orient students to the organizations.	x	x	x									
4. Assist in the election and installation of officers.		x	x									
5. Coordinate vocational student organization activities with instructional activities.		x	x	x	x	x	x	x	x	x		
6. Assist students in developing a yearly program of activities.		x	x	x								
7. Promote the organizational program through approved activities.		x	x	x	x	x	x	x	x	x		
8. Promote student interest and participation in state-called conferences.			x	x	x	x	x	x	x			
9. Supervise social and educational activities for the organization.		x	x	x	x	x	x	x	x	x		
10. Assist students in publicizing the organization.		x	x	x	x	x	x	x	x	x		
11. Assist students with the financial management of the organization.		x	x	x	x	x	x	x	x	x		
12. Assist in planning and organizing fund raising activities.		x	x	x	x	x	x					
13. Promote affiliation of the vocational student organization with the state and national vocational organizations.		x	x	x	x	x	x					
14. Encourage student representation at district, state, regional, and national organization activities.		x	x	x	x	x	x	x	x	x		
15. Provide motivation, advice, and assistance for student participation in state and national organization activities.			x	x	x	x	x	x	x	x		
16. Be available to serve as an advisor or judge for district, state, regional, or national organization activities.			x	x	x	x	x	x	x	x		

ESSENTIAL TASKS	TIMELINES											
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
COORDINATION												
1. Locate, analyze, and evaluate training stations and keep a list on file.	x	x	x	x	x	x	x	x	x	x	x	x
2. Observe new practices, equipment, and materials when visiting student training stations.	x	x	x	x	x	x	x	x	x	x	x	x
3. Visit the training stations to observe students, talk to them, and show interest in their activities. Also discuss work habits, attitudes, and proficiency of trainees with training sponsor.	x	x	x	x	x	x	x	x	x	x	x	x
4. Identify the training sponsor at prospective training stations who can provide training appropriate to student's interest, capabilities, and goals.	x	x	x	x	x	x	x	x	x	x	x	x
5. Make sure the safety provisions are followed regarding the facilities and equipment at training stations.	x	x	x	x	x	x	x	x	x	x	x	x
6. Assist the cooperating employer in verifying the legality of employing a student learner in a hazardous occupation	x	x	x	x	x	x	x	x	x	x	x	
7. Assist the student in employment training orientation.	x	x										
8. Assist the cooperating employer's personnel in accepting the training status and role of the student learner.	x	x	x	x	x	x	x	x	x	x	x	
9. Encourage the training sponsor to follow a progression of experiences for the student learner.	x	x	x	x	x	x	x	x	x	x	x	x
10. Assist the student learner in the solution of problems related to training station learning experiences.	x	x	x	x	x	x	x	x	x	x	x	x
11. Follow termination procedures from the training station for the student learner as conditions require.	x	x	x	x	x	x	x	x	x	x	x	x
12. Assess the student-learner's performance with the training sponsor and other training station personnel.	x	x	x	x	x	x	x	x	x	x	x	x
13. Obtain suggestions from the training sponsor to guide the selection of related class instruction.	x	x	x	x	x	x	x	x	x	x	x	x
14. Evaluate qualifications of prospective training station.	x	x	x	x	x	x	x	x	x	x	x	x
15. Determine federal and state wage and hour classification of the prospective training station.	x	x	x	x	x	x	x	x	x	x	x	
16. Assist the training station in acquiring a federal permit to pay a training wage if requested.	x	x										
17. Conduct job performance evaluations at least once per quarter and record in student-learner files.				x		x		x			x	
18. Make initial calls on businesses which may be potential training stations and sell them on the idea of providing a training station.	x	x	x	x	x	x	x	x	x	x	x	x
19. Keep a daily log of coordination calls and activities and prepare monthly report for the administration.	x	x	x	x	x	x	x	x	x	x	x	x
20. Arrange special work assignment projects or simulation exercises for students in the program but not employed at regular training stations.		x	x	x	x	x	x	x	x	x	x	
21. Place assigned students in training stations free of sex bias and appropriate to student's interest, plans, and abilities.	x	x	x	x	x	x	x	x	x	x	x	
22. Relocate students to a different training station (according to program policy and procedure) when the student loses employment or other circumstances indicate the desirability of a station change.	x	x	x	x	x	x	x	x	x	x	x	x

ESSENTIAL TASKS	TIMELINES											
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
23. Communicate with training sponsors regarding student-employer-employee disagreements, relationships, and problems at the training station. Personal conferences are desirable.	x	x	x	x	x	x	x	x	x	x	x	x
24. Complete a training agreement for each trainee approved by the employer, training sponsor, student, and teacher-coordinator.	x	x	x	x	x	x	x	x	x	x	x	
25. Cooperatively develop and follow a systematic training plan with each student, training sponsor, and/or employer.	x	x	x	x	x	x	x	x	x	x	x	
26. Develop a rating form and the procedure that is acceptable to the training sponsor, student, and employer for evaluating the student's performance at the training station.	x									x		
27. Arrange appointments for student interviews with potential training sponsors. Prepare students for interview and follow-up.	x	x	x	x	x	x	x	x	x	x	x	
28. Inform training sponsor regarding the federal and state laws relating to employment of minors and vocational education students.	x	x	x	x	x	x	x	x	x	x	x	
29. Help establish procedures and criteria for admission to the various types of programs utilizing the cooperative method.									x			
30. Gather student learner data (e.g., test results, records, grades) in order to provide more meaningful instruction.	x	x	x	x	x	x	x	x	x	x	x	
31. Approve training station hours and wages for student learners.	x	x										
32. Arrange school and work schedules with student-learners, faculty, and training station personnel.	x	x	x	x	x	x	x	x	x	x	x	
33. Aid student-learners in procuring required work permit.	x	x										
34. Develop time schedules for effective training station visitation.	x											
35. Maintain the student-learner's records for training station learning experiences and related instruction.	x	x	x	x	x	x	x	x	x	x	x	
36. Examine the student-learner's records to determine future training station experiences and related classroom assignments.	x	x	x	x	x	x	x	x	x	x	x	
37. Control student-learner absenteeism from school and at the training station.	x	x	x	x	x	x	x	x	x	x	x	
38. Complete the daily coordination activity report.	x	x	x	x	x	x	x	x	x	x	x	
39. Provide prospective student-learners with sex bias free resource materials on occupation opportunities to aid them in selecting a vocation.	x	x	x	x	x	x	x	x	x	x	x	
40. Interview students and interested parents to obtain student-learner interest and aptitude information.	x	x	x						x	x	x	
41. Obtain from the Advisory Committee information on ways to improve related instruction and training station instruction.			x			x			x			
42. Assist in the transfer of students to other school programs as needed.	x	x	x	x	x	x	x	x	x	x		
43. Participate in workshops, conferences, and classes to upgrade coordinator techniques and effectiveness.	x	x	x	x	x	x	x	x	x	x	x	x
44. Collaborate with training sponsors to develop student-learner employment related characteristics.	x	x	x	x	x	x	x	x	x	x		
45. Develop and implement a planned program for training sponsors, orientation and development.	x					x						

ESSENTIAL TASKS	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
	TIMELINES											
SCHOOL COMMUNITY RELATIONS												
1. Assist the school district in the promotion of educational programs.	x	x	x	x	x	x	x	x	x	x	x	
2. Inform interested groups of the many facets of cooperative vocational education.	x	x	x	x	x	x	x	x	x	x	x	
3. Inform student groups about planning a high school program to include cooperative vocational education.					x	x	x	x	x	x	x	
4. Provide brochures to inform the school and community of the various programs using the cooperative method.	x	x	x	x	x	x	x	x	x	x	x	
5. Prepare displays in the school and the community relating to cooperative vocational education.	x	x	x	x	x	x	x	x	x	x		
6. Provide news releases on activities.	x	x	x	x	x	x	x	x	x	x		
7. Obtain informal feedback through contacts with individuals in the school and community.	x	x	x	x	x	x	x	x	x	x	x	
8. Consult the Advisory Committee for their expectations and recommendations.	x	x	x	x		x			x	x		
9. Develop and maintain working relationship with school personnel through cooperation and mutual effort.	x	x	x	x	x	x	x	x	x	x		
10. Plan and conduct special events.	x	x	x	x	x	x	x	x	x	x	x	

Relevant Research

Recent research studies, focused upon the cooperative method and related pedagogy utilized in business-oriented occupational training, have tended to revolve around the essential elements discussed earlier in this section. Findings from recent studies as well as new research endeavors may provide the strategies for improving this method of instruction and training in the 80's. Secondary and post-secondary teacher-coordinators will find the *Business Education Forum, Journal of Business Education, Distributive Educator's Digest, The Delta Pi Epsilon Journal,* and *Resources in Vocational Education* valuable reference sources for keeping abreast of research findings.

Employers' Perception

Hutt[15] found that employers displayed an overall satisfaction with the cooperative method. Business leaders obtained both intangible and tangible benefits from participating in vocational programs utilizing the method. Self-satisfaction and the opportunity to obtain dependable employees were cited as examples of such benefits.

Career Choices and Guidance

More attention may be expected in the area of career choices. Legislation enacted during the 70's and mandating equal opportunity for minority groups and the elimination of sex stereotyping raises some issues which call for research endeavors.

In recent study, Bauman[16] found that students in business chose the high prestige positions and that many lacked the scholastic aptitude for attaining the education required for their chosen occupation. Among school personnel, guidance counselors and business education teachers rank the highest in influencing student career choices. However, parents have more influence on the career choice than peer groups or teachers. Other important factors influencing the choice include socioeconomic status, availability of career information, and actual achievement levels.

Husted[17] studied the importance of guidance activities and found that teacher-coordinators perceived the significance of such activities in the following rank order:

(1) recruitment and selection
(2) career counseling and occupation information
(3) trainee placement
(4) educational guidance
(5) personal-social counseling
(6) follow-up
(7) occupational placement

Another significant outcome of the study is the desired rank order of teacher-coordinator practices placed under the above guidance activities.

Related Class

Various attempts have recently been initiated to discover what attitudes, knowledges, and skills employers expect from entry-level workers. Such research must be continuous because of the constant changes prevalent in occupations and geographical areas.

An example of such a research project is the following conducted by Strnad.[18] She studied the requirements of entry-level office workers in the Warren Woods (Michigan) School District as defined by the co-op employers who hire them. All elements of attitudes were rated important by 100 percent of the respondents. Appearance was also rated important by 100 percent while dress was rated as important by 91 percent. Percentages of respondents ranking skill areas important were:

95% telephone
84% filing
75% typewriting
74% bookkeeping
53% processing mail
49% ten-key adding machines
40% duplicating machines
33% transcribing machines
28% shorthand

A major focus of current research has been on the validation of competencies desirable for employment in specified occupational areas. This form of research has gathered momentum and, without doubt, will influence the content of related instruction and on-the-job training during the 80's.

Examples of such studies can readily be cited. Oliver, Lee, and King[19] included 576 secretaries, stenographers, clerk-typists, and typists in a study to determine tasks performed and the relative amount of time spent performing each task. The data generated served as a basis for a catalog of performance-based instructional materials for the job titles of secretary, stenographer, clerk-typist, and typist.

The Research and Development Section in the Department of Adult, Vocational and Technical Education, Illinois State Board of Education has made funding available for the development of curriculum guides for various occupational clusters in marketing and distribution. These guides are based on competencies validated through research endeavors.

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[15] Hutt, Roger, "Perception of Employers Regarding Cooperative Distributive Education Programs at the Secondary Level," Unpublished Doctoral Thesis, Michigan State University, 1975.

[16] Bauman, Ben M., "Factors Related to Business Education Students' Career Choice," Unpublished Doctoral Thesis, Colorado State University, 1977.

[17] Husted, Steward W., "Perceptions of Secondary National Association of Distributive Education Teachers Regarding Their Role in Guidance and Counseling, Unpublished Doctoral Thesis, Michigan State University, 1977.

[18] Strnad, Bety A., "Requirements of Entry-Level Office Workers in the Warren Woods School District As Defined By the Co-op Employers Who Hire Them," Unpublished M. Ed. Thesis, Wayne State University, 1977.

[19] Oliver, James D., Delene W. Lee, and Patricia H. King, "Development of a Catalog of Performance Objectives for Secretarial, Stenographic, Typing and Related Occupations," Independent Study, Vocational-Technical Education Consortium of State Project, Virginia Polytechnic and State University, 1975.

Teacher-Coordinator Preparation

Competency-based instructional approaches have been instrumental in necessitating changes in teacher preparatory programs. Such changes are based on research.

For example, Williams[20] found the pedagogical requirements of a distributive education teacher-coordinator relevant to using the Interstate Distributive Education Curriculum Consortium (IDECC) System for 100 performance tasks. The pedagogical performance tasks relevant to using the IDECC System are related to a large extent to planning instruction, guidance, and coordination, and to a lesser extent, to program planning, development and evaluation, evaluating instruction, school-community relations, student vocational organization, and professional role and development.

Another component of teacher-coordinator preparatory programs was explored by Burrow[21]. His research was directed at the identification of competencies developed by distributive education teacher-coordinators as a result of occupational experience. A sequel study conducted by Groneman[22] uncovered competencies developed by business and office education teachers through occupational experience.

Teacher-Coordinator Inservice Training

As efforts continue toward the improvement of practices in vocational education, research projects may produce the strategies needed to improve the application of such practices. Casterline[23] designed a research study that vividly illustrates this point.

The study was directed at teacher-coordinators who participated in three inservice sessions on the development and use of training plans. The findings reveal that teacher-coordinators who participated in the inservice sessions had a more positive perception of the emphasis on training than nonparticipants. Furthermore, students and training sponsors who worked with participating teacher-coordinators also held a more positive perception of the emphasis on training than did their counterparts.

Student Organizations

Some attention has been focused upon student organizations. Often such studies focus upon a specific organization and may be national in scope. Siebert[24] included Distributive Education Clubs of America, Future Business Leaders of America, and Future Farmers of America in his study.

Based on chapters randomly selected from 24 states, Siebert's study revealed:

1) The longer the organization had been in existence, the more effective it was in meeting its objectives.
2) The organizations which used parliamentary procedure were more effective in achieving their objectives than those organizations which concluded meetings without these procedures.
3) Organizations that participated in state and national conventions were more effective in attaining their objectives.
4) A negative correlation exists between the achievement of vocational youth organization objectives and administrators that were ambivalent toward the youth group.
5) The longer an advisor had sponsored a youth organization, the more effective it was in achieving its objectives.
6) An advisor whose salary was contingent on sponsorship was highly correlated to the achievement of objectives.
7) The treasurer was the "key" officer in the achieving of chapter objectives.

Summary

The above sampling of recent research findings is in no way to be construed as all inclusive. It simply points out a variety of studies which have real implications for vocational education and, more specifically, cooperative education. As new concerns emerge during the 80's, the teacher-coordinator should be alert for research findings that give direction.

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[20] Williams, Terry M., "Identification of Performance Tasks for Distributive Education Teacher-Coordinators Who Use the IDECC System," Unpublished Docotoral Thesis, The Ohio State University, 1977.

[21] Burrow, James L., "The Purposes Of and Competencies Developed Through Occupational Experience for Distributive Education Teachers, Unpublished Doctoral Thesis, University of Nebraska, 1976.

[22] Groneman, Nancy J., "The Purpose Of and Teaching Competencies Developed Through Occupational Experience for Business and Office Education Teacher, Unpublished Doctoral Thesis, University of Nebraska, 1976.

[23] Casterline, Laray E., "The Effects of Training Plans on the Perceptions of Distributive Education as a Training Program, Unpublished Doctoral Thesis, The Ohio State University, 1974.

[24] Siebert, Barry W., "Characteristics Related to Successful Vocational Youth Organizations," Unpublished Doctoral Thesis, University of North Dakota, 1975.

ADULT AND CONTINUING EDUCATION

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ADULT AND CONTINUING EDUCATION

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ADULT AND CONTINUING EDUCATION

> As viewed from the world of business, what was studied in college is yesterday's knowledge. But what will be needed for a future business career is tomorrow's knowledge . . . . No matter how much education one has, it is not enough . . . . Unless one devotes time and energy to continuing his education he will become an educational dropout.
>
> —A businessman (sic)

The thoughts expressed in the above quotation provide the perspective from which adult and continuing education may be considered by business and vocational educators in the 1980s. "Adult" education programs of the 1900s expanded to "continuing" education programs in the 1970s; and more and more frequently, "lifelong learning" and "lifelong education" have become descriptors for the variety of educational services provided to nontraditional clients involved in learning activities. The potential for growth and change in adult and continuing education in the latter part of the twentieth century will be commensurate with technological and societal changes anticipated. It is the way in which professional educators will determine and meet the educational needs of adult learners that is of concern in this chapter.

Any consideration of future directions in adult and continuing education would be incomplete without first a brief return to the early part of the twentieth century when Adult Education emerged.

Historical Development

The modern era of adult education, dating from 1919 can be divided into three growth periods. Each has particular characteristics and has demonstrated significant advances.

The first period in this era took place between 1919 and 1929 and was accompanied by a spirit of idealism. Adult education was seen as a method of facilitating social reform, reconstruction and progress. In 1920 the Department of Immigrant Education of the National Education Association was established. In 1924 it became the Department of Adult Education. Numerous other agencies also came into existence during this period, the most important of which was the American Association of Adult Education in 1926. This marked the point in history when adult education was truly defined as a distinct field of social practice.

The second period, from 1930 to 1946, was a time when ideals became more realistic. Professionals in adult education wished for and encouraged the development of more specificity in definition of content and subject matter.

From 1947 to the present has been a time when the adult education movement has taken a turn toward professionalism and institutionalization. This current period has been further characterized by expanding graduate programs in adult education. The establishment of the Commission of Professors of Adult Education and the National Seminar for Adult Education Research along with the Adult Education Association of the United States of America formed in 1951 have encouraged growth and furthered interest. Important financial support has also been supplied during this time period by philanthropic foundations, as represented by contributors such as Carnegie, W. K. Kellogg, and the Ford Foundation. The government has also taken a positive approach through establishment of agencies and through legislative and financial assistance. In 1965 a Bureau of Adult and Vocational Education was created as a part of the U.S. Office of Education, and a division of Adult Education Programs came into existence.

Legislative acts which facilitated growth were passed during the 1960s. These were: the Manpower Development and Training Act of 1962, the Vocational Education Act of 1963, the Economic Opportunity Act of 1964, the Adult Education Act of 1966 and its subsequent amendments.[1]

Student enrollment figures during the twentieth century add to the historical data base. Approximately fifteen million students were enrolled in all forms of continuing education in 1924; by 1934 twenty-two million were pursuing course work; in 1950 the number grew to thirty million. It is estimated that in excess of eighty-two million adults are presently engaged in some type of continuing education program. This figure exceeds by fifteen million the elementary through university graduate level system of education. These figures clearly demonstrate the recognition of the worth of adult and continuing education by the adult population in this country.[2]

The Present and Potential Clientele

The present status of adult and continuing education deserves careful attention, understanding and consideration. Facts thus far indicate increasing numbers of enrolled students accompanied by minor emphasis and support from those financing and determining educational directions. Adult Education has received fragmented support from diverse institutions throughout the United States and individuals have had opportunities to study individually and at home.

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[1] Chester Klevins (ed.). *Materials and Methods in Continuing Education* (New York: Klevens Publications Inc., 1976), p. 14.

[2] K. Patricia Cross, "The Adult Learner," *Current Issues in Higher Education* (Washington, D.C.: American Association for Higher Education, 1978), p. 4.

Statistics generated by the National Advisory Council of Adult Education identified 54½ million persons of labor-force age who are not enrolled in school and who have not obtained a high school education. About three fourths of these persons had incomes of less than $5,000.[3] According to social scientists, children of poor and undereducated parents tend to perpetuate this pattern of existence. The breaking of this cycle is one of the strongest justifications for continuing education.

Would-be learners are statistically a little more like the average American, and those expressing no interest in further learning are predominantly older and from lower socioeconomic classes. Eighty-five percent of today's adult learners have at least a high school diploma.

Postsecondary education for young people has been reasonably well endowed with financial aid and the first two years of college at least have become increasingly accessible and necessary for increasing numbers of American college-age students. Adult education, in contrast, has received little financial assistance and has been perceived as largely voluntary and self-initiated. Up to the present time, it has not been easily accessible nor widely known to many people[4]

Despite the growth in adult education opportunities available, it has remained a fact that adult education has been considered primarily as an opportunity for an individual to attain the education which he had failed to attain by the approximate age of twenty-two.

Implicit in our understanding of the educational process has been the concept that one period of formal education is sufficient for most persons. Any work beyond this period simply attempts to compensate for incomplete efforts or failure to achieve during the earlier time. Today, however, that concept is no longer appropriate.

According to a projection by the National Advisory Council on Vocational Education (NACVE), the need will continue for certain trained craftsmen and performers of service operations. The professional outlook for college graduates, however, shows a probable deficiency of job availability. A reexamination of relevance of course offerings, coordination of employees, unions, schools, counseling and placement services, and images of vocational education is necessary by all educators.

A New Concept

Business educators have historically and necessarily adjusted their teaching to student needs and the demands brought to them by technological and societal changes. The ever-increasing pressures of change which are projected to emerge during the late 1900s require a new concept of "all-inclusiveness" to provide for the educational needs of individuals and society. Clifford M. Hardin said,

> A concept of all-inclusiveness is absolutely vital. It is our hope that the University can provide an effective program which will tend the needs of the youngsters entering our secondary schools, the young adult entering into the challenging world of reality, the middle-aged and their needs for vocational refresher work and the older-age group who need not despairingly contemplate a diminuation of vocational productiveness and an attenuation of those things which help us live a life.[5]

"Continuing Education" has been the term for this new concept. The term implies that education is a lifelong endeavor and that each individual in our society should have the opportunity to increase learning in a chosen area or to advance skills through study at any given period of life. This assumption holds true for all persons ranging from high school dropouts to college graduates.

The aims of continuing education have been defined as striving to permit people to operate successfully in society: specifically to expand communication skills, develop flexibility to change, improve human relations, facilitate participation, and assist personal growth.

The basic goal is to help individuals function more effectively in society and within their own community. In reaching these goals continuing education has offered General Academic Education; Civic and Public Affairs Education; Americanization (Nationalization) and Elementary Education; Fine Arts: Practical Arts and Crafts; Business and Distributive Education; Agriculture; Vocational and Technical Education; Homemaking Education; Parent and Family Life Education; Health and Physical Education; Personal Improvement; Recreational Activities; Safety and Driver Education, and Adult Basic Education.[6]

We learn, thus far, that adult and continuing education have prospered both in support as a distinct field of study and by the increasing number of participants. The predictions regarding future educational needs of all segments lend further credence and support to the development and growth of viable adult and continuing education programs. Given the anticipated need and potential for program development, it is necessary to carefully consider the broad spectrum of individuals who will or can be served by programs.

Incentives for Adult Learners

Adults are not required to go to school; they need not study nor pursue any formal learning. When they do develop a pattern of self improvement, enroll in formal course work or commit themselves to an independent learning activity, they have made conscious choices often at great personal inconvenience, some expense, and numerous difficulties. Most of these persons have some strong inner need to improve, grow, learn. This same inner need can be activated by external forces—the need to improve one's skill on-the-job, the desire for learning in another field of study, the need to become employable. The reasons which motivate the individual are as myriad as the individuals themselves.

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[3] Klevins, *op cit.*, p. 11.

[4] Cross, *op. cit.*, p. 4.

[5] Harold J. Alford, *Continuing Education in Action* (New York: John Wiley & Sons, Inc., 1968), p. 15.

[6] Klevins, *op. cit.*, p. 15.

For many adults, educational institutions provide support structures for life's transitions.[7] Educational programs can help individuals deal with the numerous changes they are called upon to make during their lives. Adults involved in continuing education, despite their diverse backgrounds, share in common the fact that they are aspiring to something beyond their reach. They are, in a sense, risk takers. Not only are they taking a risk with their self-esteem, but they also question and challenge their present sense of well being. They are people in transition and in the process of becoming different, equipped to function in a new life pattern or structure.

Daniel Levenson (1976) has created the concept of the life structure.[8] Research shows that adults frequently make changes in their life structures, often based on age. Levenson says that a life structure is "the pattern or design of an individual's life at any given time." His research shows that any life structure is temporary; a life structure seems to last from eight to ten years. The period in between life structures is known as a transition and is often characterized by turmoil and a period of less stability than the preceding or following life structure. During this period of transition, people must reassess the structure of their lives and either make changes or recommit themselves to old patterns.

Levenson's research also concludes that in creating an integrated life structure individuals only use a part of themselves. Thus it becomes possible to create new "matches" in which differing parts of our inner selves can be utilized as we prepare ourselves for new life stages. It becomes obvious that persons seeking education during periods of transition need educational experiences which differ from those that would be considered valuable by those persons entrenched in periods of stability. It would appear that the former group would be seeking direction or redirection while the latter's interest would manifest itself in refinement in development of existing skills. Persons in periods of stability would certainly not generate the same urgency as would those in periods of transition.

Targets for Service

From the perspective of those involved in adult and continuing education, persons in transition should be considered primary targets for educational services. The facilities, financial assistance, support structures and appropriate instructional patterns must be developed to meet existing and future needs of these students. Institutions of higher education, including four-year universities and community colleges, seem to be displaying increased interest in meeting the emerging needs of the adult or non-traditional student. The need to be responsive to the diverse requests of adult individuals and to generate credible programs at all levels is recognized in the new structures seen in post-secondary institutions. Divisions and colleges of continuing education are taking on expanded roles to provide expanded services for diverse groups. These institutions are finding themselves forced, however, to respond to these transitional needs for nontraditional students while meeting their own transitional needs.

A Learner Profile

At this time the adult or nontraditional learner is the subject of many surveys. These surveys are generating more information about the potential students than has ever been available to program planners. The surveys most frequently concern themselves with representative samples of adults over the age of seventeen who are not currently enrolled in full-time programs. These data are accumulated by persons charged with coordinating financial resources at the state level. Data gathered in the various studies seem to be consistent, thus enabling a statistical profile of the adult learner, including characteristics and educational interest. This statistical portrait cannot, of course, describe any individual student, and it ignores the immense differences in adult learners. Still it is valuable to look generally at the characteristics found in this "typical" adult learner. Data generated in such studies look not at the life-long independent learner, but focus on the individual who participates in organized instruction. This instruction may take place in the military, through correspondence or professional schools, and may be credit or non-credit generating. It provides approximately 60 percent of the organized instruction for adults with colleges and universities providing the remaining 40 percent.[9]

Carp, Peterson and Roelfs in 1974 completed a study sponsored by the Commission on Non-Traditional Study. Results classified 30 percent of the adult population as "learners." Another 46 percent were classified as "would-be learners." Approximately one-fourth of U.S. adults indicate no interest in pursuing any educational endeavors.

Attitudes and economic factors characteristic of the adult learners today are very similar to those of today's college students. The young, white, well educated and salaried adult who is employed in either a professional or a technical occupation is most likely the individual who is seeking further education. The greatest disparity in these factors will be found in the non-learner.[10]

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[7] Rita Weathersby, "Life Stages and Learning Interests," *Current Issues in Higher Education* (Washington, D.C.: American Association for Higher Education, 1978) ,p. 219.

[8] Daniel J. Levinson, *The Seasons of a Man's Life* (New York: Random House, 1978).

[9] Cross, "The Adult Learner," p. 3.

Of particular interest to Illinois educators is a study of 2,006 Illinois adults, eighteen years and older, which was conducted by the staffs of the Illinois Board of Higher Education; Illinois State Board of Education; State Advisory Committee on Adult, Vocational and Technical Education. The purpose of the study was "to provide a first time picture of adults that participate and adults that do not participate in organized instructional activities."[11] A brief summary of this survey's findings in regard to credit and noncredit participant characteristics is presented below.

Credit and Non-Credit Participant Characteristics
(Participation Rate is)

Greatest When	Credit	Noncredit
Age is	18-29	18-54
Race is	Black	White
Sex is	Male	Female
Family Income is	No difference	Higher
Marital Status is	Never married	Married
Level of Educational Attainment is	Some college in between degree Completion	H.S. Grad. Grad Degree
Employment	looking for work	Full time

The data revealed by surveys and studies reinforces the diversity of needs and desires of enrolled persons as well as potential learners. For many, the transitional nature of the experience has far-reaching implications for better understanding of self, the relationship to the world of work, and the clarification of relationships with family and work-group members.

Women in Transition

The complexities of these transitions may best be examined by looking at women as they increasingly re-enter the work force and redefine their role in society. Continuing education programs for women began in the 60s to emerge as vehicles by which mature women could gain institutional support and avoid some of the barriers which faced them. It was recognized that for women who had spent their early years in the home, rearing children and providing volunteer and community services, education could provide the needed setting for developing the self-confidence and entry-level credentials for emergence into the job market. These women possess the same diversities previously ascribed to all adult learners. Their background characteristics are as varied as their reasons for returning. Their educational expectations and objectives are equally broad in scope.

These returning women, however, experience unique obstacles created by either institutional barriers of their own personal feelings of inadequacy and, often, guilt.

The difficulty most frequently reported by women as they attempt to resume educational activity is their lack of self-confidence. Women who have spent ten to fifteen years focusing their efforts and energies in their homes have doubt as to their ability to cope with either the academic environment or the world of work. Younger students who have never left the academic mainstream and workers who have remained in the work world often appear awesome to many women and may prevent them from attempting reentry.

Women have often returned to education with a good bit of uncertainty regarding vocational interests. A lack of direction and purpose accompanying general confusion in regard to vocational and academic goals is not a flattering characteristic. This confusing condition may be the result of inadequate counseling. It may also reflect the traditional attitude of society that women do not need to think about independent lives. Nevertheless, whether one is male or female, he or she is expected to have fairly well defined goals at twenty-five, thirty, or thirty-five years of age. The uncertainty and accompanying questions that are acceptable and refreshing in the young are often embarrassing to the adult student and not so well received on the institutional level.

The further personal feelings of inadequacy and guilt over neglecting the needs of husbands and families plus the fragmentation necessitated by multiple roles have typified reentry for women into continuing education programs. The identification of certain institutional barriers has been addressed by many institutions so as to facilitate the educational progress of women.

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[10] A. Carp, R. E. Peterson and P. J. Roelfs, "Adult Learning Interests and Experiences," in K. P. Cross, J. R. Valley and Associates, *Planning Non-Traditional Programs* (San Francisco: Jossey-Bass, 1974).

[11] *Study of Adult Learners*, Sept. 26, 1978, conducted by the staffs of the Illinois Board of Higher Education; State Board of Education; State Advisory Committee on Adult, Vocational and Technical Education.

One of the greatest barriers has been the lack of information on how to begin. Women, who have for a long time thought about returning to school to pursue a degree or develop a new skill, are frequently not aware of the resources available to them. The institutional barriers in higher education are numerous. Inflexible scheduling patterns, required full-time status, lack of financial aid for part-time study, residence requirements, outdated transcripts, and time and availability of classes are all deterrents to women whose lives are already regulated to a high degree by family and/or employment demands.

Institutional Response

Institutions have responded to the specific needs of women through such organized interventions as individual or group counseling and specific programs designed to deal with common difficulties. Counseling has proved to be a key strategy in assisting nontraditional students in coping with new and unfamiliar settings and experiences. Merely putting women and older students in touch with one another provides the required support to analyze and understand reactions to new surroundings and experiences.

The attention devoted to women as a class has been highly publicized. When support services have been provided, women have prospered in academic settings. The expansion of appropriate services for all adult learners is receiving increasing attention in higher education institutions as continuing education divisions, departments and colleges continue to gain strength and significance. These same institutions, however, often display a reluctance to institute the nontraditional learning settings for nontraditional or adult learners.

It is likely that as numbers of traditional students decrease in universities, increased efforts will be made to appeal to and meet the needs of nontraditional students. The best single predictor of whether an adult will particpate in continuing learning activities, according to K. Patricia Cross, is prior level of educational attainment.[12] Each educational experience increases the probability that the individual will become an active learner over a life-long basis. The more people participate in education, the more they will wish to continue and avail themselves of educational opportunities. As institutions become more responsive to the needs of adult students, a wider variety of services should encourage further participation on the parts of adult learners.

In looking at the potential development of learning for adults it becomes essential to study not only the research related to those who value education but also to look at the less well educated. If they are to participate more fully, some changes in direction are needed.

A Learning System for Adults

A dilemma presents itself as continuing education programs are formulated and as communities explore their options in regard to their responsibilities and commitments. A problem exists in determining how to move an educational system basically designed to serve dependent children toward a system which can meet the needs of people over a lifetime of learning. This difference must be understood by those involved in program planning. The programs and activities of inexperienced children are rarely appropriate for adults who function as decisionmakers in their family groups, the world of work and their communities. For the most part, these adults come to the learning experience having made a conscious decision regarding what they want or need to learn. Adults who are not full-time students tend to have less patience, require that material presented to them be relevant to their immediate needs and are considerably less tolerant regarding what they perceive to be a waste of their time.

In a nationwide study conducted by Penland in 1977, adults were questioned about their reasons for undertaking self-planned learning rather than enrolling in classes. Their two main reasons for such action were their desires to use their own learning styles and to set their own paces for learning.[13] These kinds of data provide further reasons for providers of adult learning services to engage adult learners in the decisionmaking process regarding both the content and methodology in their continuing educational activities.

The research also reinforces the adult's need for a pragmatic approach to learning. Adults want answers to their immediate problems. They are not so much interested in storing knowledge for the future. Rather, they wish to build skills and acquire information for which they see immediate and practical applicability. Furthermore, these new learnings must be assimilated into existing frameworks and knowledge bases, and once again the difference between the two groups, adults and children, manifests itself. Adults possess an experiential base composed of life experiences. Any learning will be approached by these adults from their perspective developed over time and their responsibility as decisionmakers in today's society.

Curricular Implications

What implications then do these significant differences have for the curriculum of the 1980s in adult and continuing education programs? If lifelong education or learning becomes a necessity as the literature suggests, the curricula of schools cannot be neglected.

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[12] Cross, "The Adult Learner," p. 4.

[13] P. R. Penland, *Individual Self-Planned Learning In America* (Washington, D.C.: Department of Health, Education and Welfare, Office of Education, July 1977).

There are real implications for curricula in grades K-12. Elementary and high schools become the prime building blocks for the implementation of lifelong education. Existing school curricula should be re-evaluated with the well-defined understanding that it is the curriculum in its widest sense which prepares children to continue their education in later years. The teaching methodologies, the interest, attitudes, and pressures contribute to the curriculum as does the education provided by the family members, peers, and the community at large.

School districts through the United States are currently engaged in needs assessment and community surveys. They display varied commitment and willingness to involve their communities in defining educational goals. Declining enrollments, decreased funding, state and federal mandates all contribute toward the need to make wise decisions at the local level. Limited resources require that choices be made; citizens interested in improved educational services or equity in educational services are participating in citizen's groups, advisory groups, and curriculum councils to help determine appropriate levels of educational achievement for students. The results of these initial assessments become vital points from which to begin to develop improved curricula.

A Life-Long Process

Improved curricula should perhaps address an extended program designed to meet the life-long educational needs of all community members. Vocational educators have historically been exemplary in their cooperative efforts with business and industry. Work with advisory groups that takes into consideration manpower needs, community expectations, and projections regarding employment has been abundant. The anticipated need to retrain and assist in updating the current or returning-to-work force is predicted to be an increasing one by those surveying adults and conducting research. The projections in which future technological changes will occur at rates which will test the abilities of the work force to adjust to change are foregone conclusions. Those adults presently in the work force are presently experiencing the effects of rapid change. The threat of obsolescence is already upon many of today's workers; thus, the problem of adjusting to occupational change is not an abstract one for many adults. It is a real and present need with which many must deal.

Dubin has in his research utilized the "half-life" concept. This concept offers an important aspect in the consideration of continued learning among adults who are already skilled. He explains the half-life of a skill as the number of years after which trained people who do not seek further training are only half as competent as they were on completion of initial training.[14]

Couple this need to acquire new skills to avoid becoming obsolete with the large numbers of adults who have established themselves in one career and seek new occupational roles in mid-life. Learning in mid-life is fast becoming something more than simply pursuing a hobby, advancing in one's job, or providing adults with a diversion. For increasing numbers of adults, education in a formal sense is no longer a recreational activity. It is a necessity.

Community Involvement

In looking at ways in which the curriculum for adults can meet future needs, it seems only realistic to fully involve the community—business and industry and individuals—in the determinations of not only what to learn but how to learn. Economic factors, work force needs, the state of technology, and the prevailing needs and attitudes of communities and school districts will need to be considered as programs for adults are proposed, revised or expanded. School curricula must be evaluated in order to identify strengths and weaknesses. Adult educators need to consider entering into full partnerships with concerned advisory groups in evaluation of present and current programs. The process should provide important beginning points in designing programs of improvement which are specific and realistic enough to provoke the interest of adults and to provide real aspirations toward success.

Adult Learning Patterns

Not only is the content or subject matter of concern. According to much of the literature, one of the difficulties in engaging adults in formal study arises not out of the content to be learned but out of the organization of learning activities. All too often the planning of learning activities does not take into consideration the learning experiences adults already possess. The consideration of actual learning activities takes on new importance as indicated by the following factors which have been said to be of importance in a work curriculum oriented towards lifelong education.

1. provision of tools for self-assessment
2. opportunities for self-assessment
3. establishment of an organizational climate fostering creativity
4. contact with challenging work projects that promote on-the-job solutions to problems
5. peer interactions promoting the exchange of ideas and information.[15]

Olford, in his study, had suggested similar guidelines for lifelong education curricula for adults. He suggested that a curriculum should:

1. provide opportunity for students to initiate inquiry
2. provide opportunity for students to exhibit creativity and to accept personal responsibility for it

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[14] S. S. Dubin, *The Psychology of Lifelong Learning. New Developments in the Professions*, International Review of Applied Psychology, 1974, pp. 17-31.

[15] Ibid., p. 19.

3. provide opportunity for judging of students' work according to their own individual progress
4. provide opportunity for idiosyncratic specialization
5. provide opportunity for development and recognition of a greater diversity of talent.[16]

The consistencies in both of these guidelines reinforce the need to deal with continuing education students as adult individuals who have direction, skills, and varying degrees of competence in regard to the skills to be learned or the information to be gained. Additionally, these adults have tremendous variance in expectations and need for their learning. These variances must be addressed by adult educators as they deal with curricula and teaching methodologies employed.

Definitions of curriculum range from very restrictive to all-inclusive in nature. Curriculum can be a set of guidelines or detailed lesson plans leading to preestablished goals and objectives. Any definition of curriculum for adult and continuing education which addresses only formal plans and guidelines is too restrictive. It would be wiser to adopt the broader definition of Payne.

> However one ultimately defines curriculum one must accept that it includes everything that directs and stimulates student experience and learning. For the most part primary focus is on the educators' systematic and intentional efforts. Yet significant unplanned results do occur. What one finds is the existence of a hidden curriculum.[17]

Adopting this definition requires the recognition of an important non-school curriculum which operates in the home and community. Researchers repeatedly state that skills, attitudes and learning activities will not be confined to school-based learnings exclusively. These skills and attitudes will be extended to job sites, to home, and to community.

The Self-Directed Learner

Curriculum is moving from an academically regulated discipline to open-structured and individualized systems. Education is becoming more functional. For this reason, the need exists for flexibility in goal setting—individual learners should be able to influence their goals and objectives. Their ability to exercise some degree of control becomes a factor which can only enhance the importance of their own educational experiences. This facet of adult learning has significance for the ability of adult and continuing educators to deal with the needs and goals of young, middle-aged, and older adult students.

This concept of self-directed learning offers a new facet to adult and continuing education curricula. As learners assume more responsibility for setting goals and guiding their own activities, they then, in a sense, begin to determine their own curricula. For many adult educators, the sharing of this important determination will surely be a relinquishing of some power many thought to be an exclusive right of the professional educator. This broader sense of curriculum which ranges from individual to home to community to school to state and perhaps even to nation is relatively new and offers potential for areas of growth in planning future adult education experiences. It truly reaches out to an education which has meaning for individuals on a lifelong basis.

Out of the term "lifelong education" comes a concept or notion far broader than the traditional process of adult education. The implication of lifelong education provides for more than simply extending adult education to a wider audience or assisting those who are in the work force to improve their skills. The educational system described as life-long would embrace both adult and continuing education as we presently know them. Barriers between adult and continuing education and all other kinds of education would be broken down. No longer would adult education be considered a luxury, a remedy, or a recreational diversion—it would provide one more alternative in a total educational system composed of options and alternatives to meet the needs of all students.

Relevant Research

Useful research data and work force information as it relates to adult and continuing education come from many and varied sources. The following listing, therefore, seeks to put the reader in touch with varied sources of information related to occupational education and work force needs.

Community and Junior College Journal. Published eight times yearly. Subscriptions $8* per year from Publisher Services, Inc., 621 Duke Street, Alexandria, VA 22314. *As of November 1, 1979.

Journal of Higher Education. Subscriptions to individuals $14, Ohio State University Press, 2070 Neil Avenue, Columbus, OH 43210

U. S. Bureau of the Census, U. S. Government Printing Office, Washington, D. C. provides statistical information critical to the planning and implementation of new programs in adult and continuing education.

United States Government Manual 1978/79. Published by Office of the Federal Register, National Archives and Records Service, General Service Administration. Information on the contents of the U. S. Government Manual may be obtained by writing: Office of the Federal Register, National Archives and Record Service, Washington, D.C. 20408. This manual lists government agencies, administrators' addresses, and defines the functions of various departments, bureaus, and programs. It briefly describes types of publications available from these agencies.

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[16] J. E. Olford, "Deschooling Further Education," *The New Era*, 1972, in A. J. Cropley, *Lifelong Education—A Psychological Analysis* (New York: Pergamon Press, 1977), p. 127.

[17] D. A. Payne, *Curriculum Evaluation* (Lexington, Massachusetts: D.C. Heath, 1974), p. 6.

U. S. Department of Labor. Lists of U. S. Department of Labor periodicals can be obtained by writing to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Subscriptions to such publications as *Monthly Labor Review, Employment and Earnings, Occupational Outlook Quarterly* can be obtained. These publications will provide educators with a broad range of occupational information and trends in the work force as they relate to student and work force needs.

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Penland, P. R. *Individual Self Planned Learning in America.* Washington, D.C.: Department of Health, Education and Welfare, Office of Education, July 1977.

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Study of Adult Learners, Sept. 26, 1978, conducted by the staffs of the Illinois Board of Higher Education; Illinois State Board of Education; State Advisory Committee on Adult, Vocational and Technical Education.

SMALL BUSINESS MANAGEMENT AND OWNERSHIP

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SMALL BUSINESS MANAGEMENT AND OWNERSHIP

INTRODUCTION

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SOURCES OF INFORMATION

SMALL BUSINESS MANAGEMENT AND OWNERSHIP

A Concern for Small Business Management and Ownership

Small business management and ownership have been in existence for centuries. The United States has had small businesses since before the signing of the Declaration of Independence.

Why then, is there a sudden interest in small business management and ownership in our educational institutions? Haven't the principles been tried and proven over the centuries? What possible benefit will result from the concentration on small business? At what educational level should the student be introduced to small business management and ownership? What courses are high schools, community colleges, four-year institutions and graduate schools offering in small business? These are questions that have entered the minds of many. There is no one answer to queries such as these, but an attempt has been made to shed some light on the subject.

The following treatment of small business management and ownership is based on the educational cycles through which students may progress. At each level of education there may be students who decide to discontinue their formal education while others will continue to pursue higher education.

Secondary Education

Status

In Illinois, as well as in the United States totally, small business management and ownership, as a subject area in the secondary school, is virtually nonexistent. It is an area that has been talked about and touched upon but rarely dealt with in enough detail to warrant its existence as a separate course. As business education moves into the eighties, entrepreneurship, as a course of study, looms larger on the horizon.

Purposes and Objectives

Small Business Management and Ownership should not be available to students prior to the eleventh grade. It is preferably a senior-level course. The course should be a capstone to a course of study in small business. A suggested four-year program in small business management and ownership at the secondary level is included in this section. The course contains elements of both general and vocational education. Even though the course has a vocational thrust, it is definitely not limited to vocational education. As a general education course, it may supply a student with the impetus to select a school of business for post secondary training and thus encourage that student to make some area of business a life's work.

One of the main purposes of the course must be to keep burning that ember existing in the heart of anyone who has ever opened a lemonade stand, mowed lawns, spent evenings and/or mornings carrying papers or tended the neighborhood children.

What then are the factors that should be considered important when structuring a course in small business management at the secondary level? The following objectives are not intended to be the only ones considered but are merely those generally considered to be important in the implementation of a course and/or course of study in small business management and ownership at the secondary level.

Objectives

The objectives should provide students with:

1. Knowledge of where small business fits into our economy.
2. Information concerning the risks and problems of small business.
3. Knowledge of topics in business law that are applicable to the study of small business.
4. Knowledge of specific areas of concern to small business owners such as planning, location, sources of capital, legal form, recordkeeping, markets, credit and collections, advertising, insurance, human relations, government controls, taxes and controlling the operations.
5. Information about assistance available to small business owners and how to secure it.
6. Information relative to investigation, purchase and ownership of a franchise business.
7. Materials and assistance necessary to enable them to develop a complete plan for a business venture of their own choosing.
8. Study of small business in their environment by means of field trips.
9. In-school work experience through operation of a multifaceted business operation.
10. Incentive to prepare further for a career as a small business owner/manager.

Issues and Problems

For many years, business educators have supplied the business community with a constant stream of excellently prepared employees. Byrnside, writing in the *Business Education Forum*, stated, "We spend a great deal of time and effort training young people to be employees, but little if any time training them to be owners of businesses."[1] Consequently, although business educators have done an excellent job preparing workers, a void does exist in the area of small business management and ownership or entrepreneurship. The fact that preparation is needed in this area is pointed out, unfortunately, in the high number of reported business failures annually in this country.

Is it necessary to teach this subject at the secondary level? Isn't this a community college or four-year, post-secondary area? Aren't we involving students of the wrong age group? Won't the material covered in a course of this nature be too much for high school students? These are valid questions that are asked by business educators and school administrators. After perusing the literature supplied by Dun and Bradstreet, the Department of Commerce, the Bureau of the Census and the Small Business Administration as well as private studies, the answer to the first question above must be yes and the answer to the others must be no. Depending upon whose information is cited, the numbers and percentages of ages, educational attainment, training other than formal education and years experience working in the field will vary among entrepreneurs and the types of business they are involved in. However, a few facts stand out. They are facts that can no longer be ignored by the businessperson or the business educator. Here are three of them.

1. Many high school students have been, or may be, entrepreneurs providing services for others such as lawn mowing, baby sitting and general handy work.
2. Many entrepreneurs either terminated their formal education with their graduation from high school, never completed four years of high school, or never entered high school.
3. Finally, and to many the most disturbing fact, the failure rate among new enterprises is extreme.

The Small Business Administration estimates that 92 percent of all business failures are attributed to poor management practices. The role of the business educator is that of assisting students to recognize managerial shortcomings and showing them the value of planning and preparation prior to starting a business. As was mentioned earlier, there seems to be a bit of entrepreneurship in everyone. It shows itself briefly in the various endeavors of youth; then, in many students, it subsides. It must be the job of business education to fuel the ember.

Easier said than done? Granted. The growth of a new area within a curriculum is a challenge. In this era of financial crises in education, some might consider it ludicrous to attempt to add a program. However, when one considers the option, the graduation of students from the high schools of this country without the tools to take part in the "American Dream," then its importance increases. In those schools where the expansion of curriculum is not possible, it may be possible to combine several offerings into a reimbursable package as the first step in developing the small business course of study.

Implementation may be hampered through inadequate teacher preparation and insufficient secondary-level teaching materials. Not only are there few teachers presently in the classroom who would be prepared to teach the course, but also, few secondary level textbooks and supplementary student activities are available on the market.

Since this is a "pure" business course, additional training and possibly work experience would be necessary to develop a confidence level appropriate for successful administration of the program.

Consequently, if small business is to become a part of the secondary curriculum, teacher-training institutions must accept the challenge and, together with the various departments in their schools of business, develop needed courses of study for teacher preparation.

Prospective teachers of classes in small business will need to select courses designed to give them background in the areas of marketing, management, recordkeeping, decision making, personnel management, human relations, etc. Because the small business owner/managers must by necessity make decisions for their businesses by themselves, the teacher of small business management must be aware of the problems faced in each of the critical areas of the "one-man show."

An internship within a small business establishment should be an integral part of the teacher's training. Prospective teachers not only can observe the day-to-day activities, but also can be involved in the small business operations. An alternate form of teacher training that would involve risk but can be a very rewarding experience is that of owning a business as an investment as well as a laboratory for experiences.

Finally, the length of the course will depend on various factors. Will it contain parts of other courses, (i.e. business law, recordkeeping, selling, etc.)? What are the goals of the department? Will the course be just an overview, or will it deal with specifics? Ideally, because of the amount of material that must be covered to give students a picture of the array of subjects within the subject, one year would be better for the course than just one semester. The two-semester approach would allow a greater amount of flexibility. It would also allow the teacher to accomplish much more than just a textbook approach to the subject. Also, as was mentioned earlier, it would be best to establish the actual course, Small Business Management and Ownership, as a senior level, capstone course incorporating and utilizing all of the other subject areas that pertain to it from within and ouside of the business department. Basically, the decision comes down to whether or not a department feels committed to the teaching of small business management and ownership as an integral part of its curriculum for the eighties.

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[1] O.J. Byrnside, Jr., "Business Ownership and Management Curriculum Development Project", *Business Education Forum*, February 1973, pp. 3-6.

Methodology

Although, as with other courses, Small Business Management and Ownership lends itself to both the teacher-oriented and student-oriented approaches, some combination of the various methods would seem to work very well. There is definitely room in the subject for the lecture. This method usually garners its strength from the lecturer. Not all teachers feel comfortable with it, and most high school students get bored with it when it is used repeatedly. When materials are readily available in the form of appropriate level textbooks, the reading assignment and recitation is another feasible approach. Again, staying with this method can be costly in terms of student interest. The trend in textbook preparation seems to lean toward the preparation of workbook materials to go along with the information presented in the chapter. Being highly organized, the student activities tend to assist the new teacher greatly. Although a few good guides and student activities exist presently, more must be done in the area of developing texts and appropriate student activities for this secondary level.

Not discounting need for the traditional or teacher-oriented methods, the real challenge lies in the formation of a methodology that would allow the student of small business to put to use some of the ingenuity and innovativeness required of the small business owner/manager. The project approach would allow the student to learn and apply the information dispensed and made available in the class to a business venture of the student's choosing. An outline would be given to the students which leads them through as many areas as possible that must be dealt with when preparing to enter the world of small business. As each area is dealt with generally in the classroom, time would be given for each student to work specifically with the topic as it relates to that student's plan for opening a business. This project method draws from the traditional methods, and it also injects a great deal of flexibility and individualization through the use of student-oriented methods of discussion, case study, and committee and group work. The project, upon completion by the end of the year, would be a complete and researched plan for starting a small business in a given community. In comparison, it would contain much that would be found in a feasibility study.

Finally, to make the course as meaningful as possible, a hands-on business project could be set up after the class is formed for the year. The reason the business must wait until the class has been set up is that the students would be the ones who, with the guidance of the teacher and within the guidelines set up by the school administration, would finance, plan and operate the in-house business or businesses. The business the students decide on may be limited to one type, such as retailing, or it may include the manufacturing and the wholesaling of a product. The business project is an excellent way for the students to learn by doing. There may be other advantages to this type of business venture, one of which would be the generation of a profit. Profits could be used to do things that may be prohibited by the lack of funds in a dwindling departmental budget. Profits could be used to purchase supplies for instruction, books for reference, tapes, film strips and equipment. Field trips could be financed and a business trip could become an integral part of the agenda. It should be emphasized that a project such as this would only be effective if all of the students are involved, and all of the students are scheduled to work in as many facets of the business as possible. It is, in effect, an in-house training station and should have the training of the students as its top priority.

Course Outline

Tables of contents for courses of study will vary. However, several topics consistently appear, and they are enumerated with a minimum of comment in this document. As was indicated earlier, many factors play a role in determining what will be included in the course. Length of time is probably the most critical. It is felt, however, that in order to cover the subject adequately, the following areas should be included.

A Sample Topical Course Outline

I. Orientation to the World of Small Business

    A. Definitions
    B. Value to the economy
    C. Problems involved with small business
    D. Failures
    E. Traits and characteristics of small business owners

II. Forms of Ownership

    A. Single Proprietorship
    B. Partnership
    C. Corporation

III. Location

    A. State
    B. Community

C. Options available (areas to locate within a community)
D. Problems involved with selection

IV. Systems and Records

A. Basic recordkeeping
B. Payroll records
C. Account structure

V. Pricing

A. Factors involved in pricing
B. Policies in regard to pricing

VI. Financing

A. How much is needed
B. Where do you get it
C. What is an SBA loan

VII. Market Analysis

A. To whom are you selling
B. With whom are you sharing the market
C. When is expansion and growth necessary

VIII. Managerial Planning

A. Necessity for planning
B. Long range versus short range
C. Time as a factor in the small business

IX. Financial Management

A. Cash flow
B. The nature of costs

X. Credit and Collections

A. Controlling sales
B. Collections methods
C. The major credit card

XI. Advertising and Sales Promotion

A. Why advertise
B. Review of media options
C. Importance of the advertising budget

XII. Insurance and Risk Management

A. Decreasing risks
B. Building the effective insurance package
C. Insurance as a cost of operations

XIII. Human Relations

A. Employee relations
B. Customer relations
C. Peer and colleague relations

XIV. Franchising

A. Law and franchising
B. Investigation
C. Pitfalls and problems

XV. Taxation and Regulation

A. Federal, state and local taxes
B. Office of Safety and Health Administration
C. Code Enforcement
D. Zoning

XVI. Others

A. Layout
B. Getting started in business
  1. Starting from scratch
  2. Buying an existing business

The outline contains a sizeable, almost overwhelming, number of possibilities. The treatment may or may not be in the order it appears here. Again, though, these areas tend to be the ones treated by existing literature.

Suggested Occupational Course Sequence*

12th Grade - Skill Development (semester courses)
Marketing Occupations or Project Laboratory
Small Business Management
Finance and Credit
Customer and Human Relations
Advertising

11th Grade - Skill Development (semester courses)
Marketing Project Laboratory (double period) or Selling
Accounting I
General Marketing
Introduction to Data Processing

10th Grade - Orientation (full year)
Introduction to Marketing
Typing I

9th Grade - Exploration/Orientation
Orientation to Business, Marketing and Management Occupations

*As defined on page 8 of the IOE/AVTE Curriculum Guide "Owning and Operating a Small Business."

Summary

Small business management and ownership as a viable option for graduates of the secondary school can no longer be ignored. It is time as business education in Illinois moves into the eighties to take a serious look at entrepreneurship. The need is real; the tools for assisting the teacher in the conveyance of information are just now beginning to emerge, and many educators are showing an interest in this critical area. It is time for the business educators of Illinois to take the lead and begin the development of strong programs in small business management and ownership.

Post Secondary (Community College)

Status

The Triton College located in River Grove, Illinois, conducted a study in cooperation with the State Board of Education "State of the Art of Small Business Management Training in Illinois," August 1978. Materials in this section are taken from that study.

The research study resulted in ten major conclusions:

1. **The Need**
   There is a need for the continued development of educational programs to serve the needs of small businesses.
2. **Service to Populace**
   Illinois community colleges are currently doing little to service the small business populace
3. **Current Efforts**
   The educational efforts toward small businesses can be divided into two categories: (1) Preventative and (2) In-service or developmental.
4. **Community College Network**
   Illinios community colleges are perhaps the best existing network for servicing the small business educational market.
5. **Support Agencies**
   There are many existing agencies that could and do contribute to the success of small business programs, and many two-year college personnel are unaware of them.
6. **Some Success**
   Regionally and nationally, two-year community colleges have had the greatest success in serving this market with short-term courses, seminars, units of instruction, and individualized consultations.
7. **Program Development**
   "Packaging" and/or modifying existing credit programs should be encouraged rather than building totally new degree programs in small business management.
8. **Market Knowledge**
   Market knowledge and effective use of promotional strategies are crucial to the success of course programming for small businesses.
9. **A Self Supporting System**
   Many two-year college small business programs appear to be self-supporting financially—excluding administrative costs.
10. **Four-Year Institutions**
    Four-year colleges and universities are offering a minimum amount of coursework, but they are beginning to do more personalized consulting with small businesses.

The study produced a listing of course offerings of Illinois two year colleges. The listing on pp. 10 and 11 includes credit and non-credit courses designed for new and/or current small business owners and managers.

Adult Education Courses

Management Skills

Course Offerings	Cr. Hrs.	Weeks In Session	Approx. Enrollment
Industrial Purchasing	3	16	30
Advertising	3	16	85
Salesmanship	3/1	16	145
Consumer and Market Behavior	3	6/8	60
Managing Small Business for Profit	2	16	30
Employee Inter. and Tech.	2	12	15
How and Why of Advertising	2	12	15
Selling by Mail	3	15	15
Advanced Bookkeeping	1.33	10	12
Bookkeeping I & II & III	3	12	227
Principles of Management	2/1	12	120
Management Planning Techniques	2	12	15
Finance for Non-Finance Management	2	12	30
Legal Consideration	1	6	30
Payroll Reports	1	6	30
Merchandise/Inventory Control	1	6	15
How to Start Your Own Business	1/2	10	128
Real Estate	1.33/2	10	120
Investments	1.33	10	25
Insurance Fundamentals	1.33	10	0
Personal Money Management	1.33	10	20
Intro. to Business Filing	1.33	10	25
Office Machines	1.33	10	20
Receptionist Procedures	1.33	10	25
Business Management	1.33	10	40
Commercial & Business Law	2	17	N.A.
Labor Relation for Supervisors and Managers	3	17	N.A.
Small Business Management	3	16	N.A.
Income Tax Preparations	2	10	60
Introduction to Business English	1.33	10	15
Route Selling	3	10	N.A.
Secretarial and Office Practice	1	10	20
Traffic and Shipping Procedures	1	8	12
Quality Control	1	10	12
Introduction to Plastics	1	10	15
Food Sanitation and Safety	1	3	70
Successful Organization and Communication	1.5	12	25
Non-Verbal Communication	N.A.	6	12
Management by Objective	1	8	10
Financial Mgmt. for Small Municipalities	3	15	25
Mgmt. Principles for Nursing Home Supervisors	1.5	12	12
Introduction to Small Business	2	11	20
Food Mgmt. and Supervision	2	12	30
Mgmt. Development I & II & III	2	10	89
Installment Credit	3	10	20
Managerial Economics	1	8	52

Adult Education Courses

Entrepreneurial Attitudes and Skills

Course Offerings	Cr. Hrs.	Weeks In Session	Approx. Enrollment
Human Relations	2	12	30
Time Management	2	12	15
Involvement and Cooperation	1	6	15
Management Communication	1.33	10	15
Business Management	3	16	30
Communication and Leadership Seminar	3	17	N.A.
Techniques of Supervision	1.33	10	50
Psychology for Supervisors	1.33	10	20
Labor Relations	1.33	10	20
Traffic Management	1.33	10	27
Custodial Management	1.33	10	15
Environmental Relations	3	11	20
Business and Public Policy	2	11	15
Grammar and Letter Form	1	8	43
Bookkeeping I & II	2	12	62
Principles of Insurance	2	10	30
Welding	2	12	70
Food Management and Supervision	2	12	30
Income Tax	1	6	10
Carpentry Apprenticeship	3.5	18	15
Construction Cost Estimate	1.5	12	70
Public Water Treatment I & II	3	15	60
Data Processing I	2.5	12	15
Food Sanitation and Safety	1	2.5	70

Current Programs

There were nine exemplary two-year college Small Business Programs established which were based on the results of the study.

The survey produced nine two-year colleges with comprehensive small business programs.

1. **Eastfield Community College**
   (Dallas, Texas)
2. **Blackhawk College**
   (Moline, Illinois)
3. **El Centro College**
   (Dallas, Texas)
4. **Minneapolis area community colleges**
5. **Florida community colleges**
6. **Tarrant County Junior College**
   (Ft. Worth, Texas)
7. **Amarillo College**
   (Amarillo, Texas)
8. **Hawkeye Institute of Technology**
   (Waterloo, Iowa)
9. **Triton College**
   (River Grove, Illinois)

Curriculum Models

The study produced two comprehensive curriculum models. The Lewis and Clark Community College Curriculum model was added for comparisons. (See following pages: 12, 13, 14)

Tarrant County Community College
Fort Worth, TX

SMALL BUSINESS MANAGEMENT (SBM)
CURRICULUM 1977-78

FIRST YEAR

FIRST SEMESTER		SEM. HRS.	LECT.	LAB.
ENG 1613	English Comp. I or ENG 1303 APP. Comm. I	3	3	0
BUA 1303	Business Math	3	3	0
BUA 1613	Introduction to Business	3	3	0
PSY 1643	Human Relations	3	3	0
BUA 2723	Salesmanship	3	3	0
HPE 1611	Health Concepts of Physical Activity	1	1	2
*PSY 1611	Orientation to College	1	1	0
		17	17	2

SECOND SEMESTER				
ENG 1623	English Comp. II or ENG 1313 App. Comm. II	3	3	0
BUA 1623	Principles of Acctg. I	3	3	0
BUA 2733	Principles of Management	3	3	0
BUA 2713	Principles of Marketing	3	3	0
BUA 2663	Business Law I	3	3	0
HPE	Physical Education Activity	1	1	0
		16	16	0

SECOND YEAR

FIRST SEMESTER				
GOV 2623	Texas State & Local Government	3	3	0
BUA 1633	Principles of Acctg. II	3	3	0
ECO 2613	Principles of Economics I	3	3	0
**SBM 2603	Small Business Management	3	3	0
BUA 2763	Consumer Finance	3	3	0
	Elective	3	3	0
		18	18	0

SECOND SEMESTER				
GOV 2613	United States Government	3	3	0
DAP 1303	Introduction to Data Processing	3	3	0
**SBM 2613	Small Business Planning, Control & Finance	3	3	0
**SBM 2623	Small Business Practicum	3	3	0
SBM 2601	Selected Topics in Small Business Management	1	1	0
	Elective	3	3	0
		16	16	0

GENERAL ELECTIVES: BUA 2683, BUA 2693, BUA 2753, BUA 2673, BUA 2613, BUA 2643, ECO 2623, DAP 2393, BUA 2653, MID 2313.

** Required of all SBM majors.
* Required of all full-time day students during the first regular semester of their freshman year.

AMARILLO COLLEGE
Amarillo, TX

SMALL BUSINESS MANAGEMENT CURRICULUM

FIRST YEAR

First Semester		Semester Hours	Lect.	Lab.	Clock Hours
Bus 133	Introduction to Business	3	3	0	48
MM 131	Human Relations in Management	3	3	0	48
MM 111	Human Relations Seminar	1	1	0	16
MM 121	Management Training	2	0	20	320
Engl 131	Freshman Composition	3	3	0	48
Bus 134	Business Math	3	3	0	48
or	OR				
Bus 131	College Algebra				
		15	13	20	528

Second Semester					
MM 136	Functions of A Supervisor	3	3	0	48
MM 114	Functions of a Supervisor Seminar	1	1	0	16
MM 122	Management Training	2	0	20	320
Engl 132	Freshman Composition	3	3	0	48
Eco 131	Introduction to Economics	3	3	0	48
	Elective	3	3	0	48
		15	13	20	528

SECOND YEAR

First Semester					
MM 134	Advertising and Sales Promotion				
or	OR				
MM 231	Principles of Marketing	3	3	0	48
MM 116	Advertising and Sales Promotion				
or	Seminar OR				
MM 211	Principles of Marketing Seminar	1	1	0	16
MM 221	Management Training	2	0	20	320
MM 2311	Personnel Management	3	3	0	48
Acctg 231	Financial Accounting	3	3	0	48
Bus 2317	Fundamentals of Salesmanship	3	3	0	48
	Elective	3	3	0	48
		18	16	20	576

Second Semester					
MM 2310	Small Business Management	3	3	0	48
MM 2110	Small Business Management Seminar	1	1	0	16
MM 222	Management Training	2	0	20	320
MM 2312	Labor and Employee Relations	3	3	0	48
MM 235	Communications	3	3		48
MM 214	Communications Seminar	1	1		16
Govt 233	Government of the U.S.	3	3	0	48
or	OR				
Govt 234	Government of Texas and U.S.				
		16	14	20	544
	TOTALS	64	56	80	2176

LEWIS AND CLARK COMMUNITY COLLEGE
GODFREY, ILLINOIS

SMALL BUSINESS MANAGEMENT
ASSOCIATE IN APPLIED SCIENCE DEGREE

This Program was developed in cooperation with the Small Business Administration and is designed to provide training for individuals who plan employment in small business operations as employees, managers or owners. It is also for individuals already involved in small business operations who are seeking to improve their skills and knowledge.

FIRST YEAR

	Credit Hours
SMBU 152 Management for Small Business	3
SMBU 139 Accounting for Small Business	3
MATH 139 Business Mathematics	3
SPCH 131 Fundamentals of Speech	3
ENGL 131 First-Year English I	3
Total	15

	Credit Hours
MKTG 136 Salesmanship	3
SMBU 162 Development and Evaluation Methods for Small Business	3
ENGL 141 Business Communications	3
Mathematics OR	
BUSN 246 Quantitative Business Methods	3
MGMT 134 Management of the Manufacturing Enterprise	3
Total	15

SECOND YEAR

	Credit Hours
SMBU 201 Loss Prevention and Security	3
BUSN 181 Financial Management	3
Humanities Elective	3
*Electives	9
Total	18

	Credit Hours
MKTG 234 Principles of Retailing	3
MGMT 233 Case Studies in Management	3
ECON 151 or 152 Principles of Economics	3
MGMT 132 Principles of Personnel Management	3
Electives	6
Total	18

*Suggested Electives: REAL 131, MKTG 248, BUSN 141, 142, 146, Secretarial Science, or other occupational courses with approval of Division Chairman.

SMALL BUSINESS MANAGEMENT
CERTIFICATE PROGRAM

	Credit Hours
MATH 139 Business Mathematics	3
SMBU 139 Accounting for Small Business	3
SMBU 152 Management for Small Business	3
MKTG 234 Principles of Retailing	3
SMBU 201 Loss Prevention and Security	3
ENGL 131 First-Year English 1	3
MKTG 136 Salesmanship	3
SMBU 162 Development and Evaluation Methods for Small Business	3
MGMT 134 Management of the Manufacturing Enterprise	3
MGMT 233 Case Studies in Management	3
Total Hours Required	30

Four-Year Colleges and Universities

The four-year colleges and universities are primarily engaged with the Small Business Institutes, a program of management assistance co-sponsored by the Small Business Administration and the College and/or University. This program was initiated in August of 1972 with thirty-seven schools participating nationwide. Today, over five hundred universities are involved with the Small Business Institute. The SBI Program has been the most successful and cost effective program the nation's small business owners/managers have ever had offered to them.

Purposes

The purpose of the Small Business Institute program of Management Assistance is to provide the senior/graduate student with an ongoing live business experience. The student will have the opportunity to put into practice the textbook and classroom experiences that they have been exposed to during their tenure in college. The business person will be provided free consulting services to help identify and solve some of the most pressing problems of the business.

Objectives

1. To provide students with controlled outside experiences with live, ongoing businesses.
2. To allow students to test some of the materials they have learned in the classroom on a live business.
3. To shock the students with the problems associated with actually running a business.
4. To enable the students to better decide whether they would rather run their own business or work for someone else.
5. To show the students how the functional areas of business mesh together to produce a suitable business establishment.
6. To acquaint the student with some of the resources available in small business ownership and operation.
7. To reveal to students the lack of consistency in the operation of a large and a small business.
8. To assist local businesses with management assistance needed to run their business.
9. To introduce new techniques of business operation to the owner/manager.
10. To evaluate the current state of business for the owner, and to subsequently make recommendations for upgrading processes and techniques.
11. To assist the business owner in setting up and operating new systems and methods.
12. To show the business owner/manager the expert capabilities of graduating business students.

Issues and Problems

Several of the business owners may not have had the benefit of higher education. A large group of business owners who have had the opportunity to attain higher education have done so in fields other than that of business.

For the people who will be going to high school and college in the near future, it seems reasonable and productive to offer small business training. This training could begin in high school, progress further in community college, and finalize in senior and graduate course work. Both senior- and graduate-level small business courses would be of the consulting nature. Work-study programs and Junior Achievement would be an adjunct to the small business course work at the high school and two-year colleges.

The need for seminars and workshops in small business is partially being satisfied by credit and non-credit courses offered by adult education in the high schools and colleges.

The Federal and State governments are experimenting with a plan called the Small Business Development Center. Matching funds from both federal and state sources are allotted to certain schools and regional areas with the following objectives:

1. To provide counseling assistance in the basic functional areas of accounting, finance, management, and marketing.
2. To provide training opportunities for owners, managers, and employees of small businesses so as to increase their basic skills.
3. To help make technology available to small business clients and to the communities of the State.
4. To assist disadvantaged groups such as minorities and women achieve entrepreneurial status in the community.
5. To make educational opportunities available for owners and managers of small businesses.
6. To use educational resources in the development of the basic and applied research that emphasize small business management.
7. To develop an economic data base and an information delivery system.
8. To promote the growth and development of the free enterprise system.
9. To help create an economic environment that assists small businesses to survive and flourish.
10. To serve as an advocate of the small business community.

Currently there are eight pilot Small Business Development Centers in operation. These centers are located in: California, Georgia, Missouri, Florida, New Jersey, Nebraska and Maine.

If funding can be made available by both federal and state legislatures, there is a good possibility that more intensive and extensive training in the small business area can be made available to interested persons.

Methodology

The methodology will vary with each school and with each instructor. A successful program would include:

1. An organized class for college credit.
2. A textbook on small business management.
3. Tests on text and related materials provided by lectures.
4. Review of the literature focused on small business operations with oral and written reports required.
5. A weekly progress report of activities from the previous week in meetings with the business owner.
6. A final report of all activities, findings and recommendations for changes. An oral and written report are given to the business owner.
7. Films on small business functional areas.
8. Speakers from business, industry and government.
9. Introduction to materials available from the Small Business Administration.

A course in Entrepreneurship can be offered in either the two- or four-year institution. This course would resemble the Small Business Management Course described above except that the student teams would not work with live businesses. These teams would work toward the objective of starting a particular type business. Entrepreneurship would be an excellent prerequisite course to the Small Business Management Consulting program. In addition, Entrepreneurship could be the small business course taken to learn how to start a business.

Conclusion

There is a need for more small business instruction in high school, community college, and in four-year universities and graduate schools. In addition, existing businesses need exposure to new methods and ideas in business. Seminars and workshops can play an important role as vehicles in disseminating this information.

Sources of Information

The Entrepreneurial Function. Prentice Hall Inc., Englewood Cliffs, NJ 07632. 1977. 484pp. Available on loan from the East Central Curriculum Management Center.Illinois State Board of Education, 100 North First Street, Springfield, IL 62777.

This book uses short sections of the test and related cases to explain and illustrate the functions to the entrepreneur and the particular characteristics of small business management.

Owning and Operating a Small Business: Strategies for Teaching Small Business Ownership and Management. Department of Adult, Vocational and Technical Education, Illinois State Board of Education, 100 North First Street, Springfield, IL 62777. 1986. 1976. 148pp. Available for sale from the Curriculum Publications Clearinghouse, Western Illinois University, 76B Horrabin Hall, Macomb, IL 61455 for $3.50.

The objective of this guide is to aid the teacher in providing instruction in small business ownership and management to students who desire the knowledge and skills necessary to start a small business and nurture its growth. While the content of the guide is directly related to the teaching of management information and skills, a unique aspect of the guide is the design of the activities suggested in each unit.

Small Business Information Sources (An Annotated Bibliography). National Council for Small Business Management Development, 929 North Sixth Street, Milwaukee, WI 53203. 1976. 318pp. Available on loan from the East Central Curriculum Management Center.

This book is a reference document for anyone interested in starting, managing, advising, or conducting a small business. Owners, managers, consultants, bankers, and others should find this book a valuable source of information. This book is divided into sections—books on business practice, classroom textbooks, periodicals and booklets, research studies, government publications, minority small business, conference proceedings, and international small business.

Specialized Small Business Management for Trade, Industrial, and Technical Areas. Minnesota Instructional Materials Center (MIMC), 3300 Century Avenue North, White Bear Lake, MN 55110. Available on loan from the East Central Curriculum Management Center.

This four-part document is now available on the subject area of Small Business Management. Part I is designed as a 12-week course in human relations and Small Business Management. Part II is a 12-week course in Business Law, Salesmanship, Oral and Written Communications, and Marketing. The third section covers Business Mathematics, Record Keeping, Practical Bookkeeping, and Applying for a Job. The last section deals entirely with Supervision.

THE BUSINESS TEACHER AS A PROFESSIONAL

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THE BUSINESS TEACHER AS A PROFESSIONAL

INTRODUCTION
PROFESSIONAL ORGANIZATIONS
STUDENT ORGANIZATIONS
PRESERVICE BUSINESS TEACHER PREPARATION
STUDENT TEACHING
INSERVICE BUSINESS TEACHER EDUCATION
ACCREDITING AND CERTIFYING AGENCIES
THE IMAGE OF BUSINESS EDUCATION IN THE SCHOOL AND LOCAL COMMUNITY
SUMMARY STATEMENT

THE BUSINESS TEACHER AS A PROFESSIONAL

The business teacher as a person is the most important aspect of the business teacher as a professional. One's basic way of seeing things controls one's actions and, more importantly, what one is. Professionals feel good about themselves, the people with whom they work, and the world in which they work. They feel significant, wanted, respected, and free to exercise their best judgment. They have a sound basic philosophy, know and understand it, and feel comfortable in communicating it to others. They are able to be themselves. They like and appreciate the learners and the learning.

Professional teachers are competent, know what needs to be accomplished, know the most appropriate methods for each goal, recognize the needs of the individual students, identify effective means of producing extrinsic and intrinsic motivation, aid the students in applying the learning to their own needs and lives, and know how to impart intellectual curiosity.

Professional Organizations

Professionalism is a philosophy that must be developed by all who decide to make teaching a life-long profession and career. A positive professional attitude and personality can have as much impact on teaching ability as the use of modern equipment, up-to-date materials, innovative techniques, and other classroom strategies. To develop professionalism, teachers need the assistance of experts in the fields of education and business education, of other professionals, and of lay people—all of whom share the same concern for keeping business education current and meaningful to the development of students. The molding force that brings together all these factors is professional organizations. These organizations serve to unite those committed to education.

The professional organizations that an educator can join are numerous. Some of these organizations are open to all educators, while others are exclusively for business educators. There are organizations on the international, national, state, and local (regional) levels that have professional goals which are of great interest and value to business educators, and which can help business educators gain wide insight and understanding into the profession and the duties and responsibilities faced by all teachers. Many of these organizations are open to undergraduate students at reduced costs. A listing of professional organizations for business educators includes:

International and National

Society of International Economics (commonly referred to as ISBE, International Society of Business Education)

National Education Association of the United States, 1201-16 Street, N.W., Washington, DC 20036

National Business Education Association, 1906 Association Drive, Reston, VA 22091

National Association of Business Teacher Education (Division of NBEA)

American Vocational Association, Inc., 2020 N. 14th Street, Arlington, Virginia 22201

Delta Pi Epsilon (honorary graduate fraternity) National Office, Gustavus Adolphus College, St. Peter, MN 56082

American Council on Consumer Interests, Stanley Hall, University of Missouri, Columbia, Missouri 65201

Joint Council on Education and American Economics Association, 1212 Avenue of the Americas, New York, NY 10036

American Business Communications Association, 911 South Sixth St., University of Illinois, Champaign, IL 61820

Regional

North-Central Business Education Association (one of the five regional associations affiliated with NBEA)

State and Other

Illinois Education Association

Illinois Vocational Association

Illinois Business Education Association

Affiliates
- Association of Illinois Business Schools
- Central Illinois Business Education Association
- Chicago Area Business Educators Association
- Chicago Business Teachers Association
- Eastern Illinois Business Education Association
- Illinois Business Teacher Educators Council
- Illinois Cooperative Vocational Education Coordinators Association
- Illinois Community College Marketing and Management Association
- Mid Illinois Business Education Association
- Northern Illinois Business Education Association
- Peoria Area Business Education Association
- Southern Illinois Business Education Association
- Southwest Area Business Education Association
- Western Illinois Area Business Education Association

Illinois Consumer Education Association

Delta Pi Epsilon Chapters in Illinois:

Alpha Beta—University of Illinois, Urbana

Alpha Phi—Northern Illinois University, DeKalb
Beta Beta—Southern Illinois University, Edwardsville
Beta Iota—Illinois State University, Normal
Lambda—Northwestern University, Evanston
Beta Psi—Eastern Illinois University, Charleston
Beta Chi—Western Illinois University, Macomb
Beta Omicron—Southern Illinois University, Carbondale

Knowledge

These professional organizations provide many avenues for widening general education knowledge and business education knowledge in particular. Through these organizations, educators are able to share ideas with others and obtain information that will aid in classroom instruction, in areas of curriculum development, in methods of testing and evaluation, and in other areas of concern to the teaching of business education. The problem-solving process, through the exchange of ideas, will enable the business educator to identify common areas for consideration, and at the same time will help the teacher become sensitive to the problems of others.

Legislation

Through membership in professional organizations, educators can keep abreast of current legislation that is passed on the national and state levels regarding general education, business education, and vocational and career education. In addition, since many of these organizations represent large contingency groups, they can serve to influence legislative action and be instrumental in securing the passage of legislation. This influence can benefit business education and help maintain its position in the overall educational system.

Publications

There is a wealth of information to be gained from the reading of professional journals and publications. Many of these are available through professional organizations and are provided free as a service to their members. Publications received from membership in professional organizations include:

Business Education Forum (incorporates the *National Business Education Quarterly)*, NBEA

NABTE Review (Annual), NABTE

Business Education Yearbooks, NBEA and EBTA

Business Education Association Yearbook, Metropolitan New York, BEA

Illinois Career Education Journal, Illinois State Board of Education

Illinois Vocational Progress, IVA

Illinois Business Education Association Reports, IBEA

Delta Pi Epsilon Journal, DPE

Business Education Index, DPE

American Vocational Journal, AVA

Update, AVA

S.I.E.C., Society of International Economics (Commonly referred to as ISBE, International Society of Business Education)

Business education periodicals and other literature include the following publications which were free as of November 1, 1979:

Balance Sheet. South-Western Publishing Company, 5101 Madison Road, Cincinnati, Ohio 45227

Business Education World. Gregg/McGraw-Hill, Manchester Road, Manchester, MO 63011

Century 21 Reporter. South-Western Publishing Company, 5101 Madison Road, Cincinnati, Ohio 45227

Collegiate News and Views. South-Western Publishing Company, 5101 Madison Road, Cincinnati, Ohio 45227

Exchange. Harcourt Brace Jovanovich, Inc., 757 Third Avenue, New York, NY 10017

Typewriting News. South-Western Publishing Company, 5101 Madison Road, Cincinnati, Ohio 45227

Not only do these publications and journals offer valuable information concerning business education, but they also offer individuals the opportunity to make contributions, based on personal experience and expertise, by submitting articles that will aid other educators and help improve the business education field.

Research

Many professional organizations conduct research studies that aid business educators in finding reliable and valid answers to educational problems. In addition to conducting some research studies of their own, professional organizations are continually reporting the findings of other education research studies and masters' and doctors' theses studies. These findings can prove to be invaluable to business educators as they strive to keep current with the changing world of business and economics.

Meetings

Professional organizations sponsor a variety of conferences, workshops and meetings for educators. These sessions provide the opportunity of learning and sharing new ideas from other professionals, for meeting leaders in various fields of education, and also for providing leadership opportunities for individuals through conducting workshop sessions, leading group discussions, and serving on committees.

Other Contributions

Other contributions made by professional organizations include: presentation of awards by the various groups for service rendered and for contributions made to the business education field; the opportunity for examination of textbooks, equipment, and other educational materials at conferences; handouts and displays of educational LAPS, units, etc., used by various teacher and schools; the opportunity to contribute to or purchase educational aids; and social orientation to the business education profession.

Professional organizations are only as effective as their individual members. In reflecting on what professional organizations can do for individual educators, each individual's role as a working professional must be ascertained. By presenting a professional image and spirit to other members of one's department, staff and community, a commitment is shown to the business education profession and to educating youth today. By associating with business and professional groups, business educators can keep abreast of the latest innovations and practices. Pride in one's profession will serve as a model for student teachers and develop a loyalty that will carry over to the school and students. As the image of business education is strengthened in schools, the role of the business educator is strengthened.

Student Organizations

Teacher's Viewpoint

Business teachers have available a variety of student organizations with a program of activities which can complement, supplement, enrich and strengthen instructional programs.

One of the student organizations available in vocational business education is the Distributive Education Clubs of America (DECA), which is designed specifically for students enrolled in a marketing, management, and related subject program. The Future Business Leaders of America (FBLA) is an organization for all students who have taken or are enrolled in business education courses. Phi Beta Lambda (PBL) is the post-secondary organization for students in junior colleges or universities who have a career objective in business, marketing and management occupations. The Office Education Association (OEA) is designed for junior or senior students enrolled in a vocationally reimbursed course and who have an office occupation as a career goal. Pi Omega Pi is an honorary organization at the post-secondary level and acknowledges scholarship and and encourages professional development.

There are other student organizations for business students that are not affiliated with the state vocational programs. For example, the Future Secretaries Association (FSA) is an international association for prospective secretaries and is sponsored by the National Secretaries International.

Making contributions to the lives and education of students in preparing them to accept their civic responsibilities and being able to contribute to their individual growth to the extent that they will be prepared to succeed in their desired careers is probably the dream of every dedicated business teacher. Sponsoring a student organization can help every teacher fulfill this dream.

Being an adviser of a student organization allows opportunity for the teacher to become better acquainted with the student than is possible in the classroom situation alone. Student organizations help the teacher promote an interest in the business education program and help the student develop proper attitudes and interest in the business world. An active student group is the key to good public relations for the vocational business programs and the school.

The teacher is a vital part of every student organization. Outstanding student organizations have an adviser who is a dedicated and dynamic leader. Personal qualities should include enthusiasm, initiative, patience, professionalism, a definite liking for young people, a sense of humor, and high degree of respect for the ideas of students.

Student's Viewpoint

Student organizations provide the opportunity for the youth of today to satisfy their desire to have a voice in their education and provide them with the opportunity for self-expression. An integral part of every vocational program should include a student organization providing activities to improve knowledge, increase skills, and shape attitudes for advancing the student's business career. Students must be provided with the opportunity of learning first-hand the operation of our business system. They need to participate in group endeavors, engage in business enterprises, learn how to hold offices, and learn how to direct the affairs of the group. They need to participate in competitive events and learn how to cooperate with other students and representatives of various organizations.

Members of student organizations:

—work together to keep the organization functioning

—engage in business activities to raise funds for financial obligations and travel

—participate in civic, career awareness, social awareness, and public relations projects

—learn how to lead and participate in group discussions

—learn how to preside at local meetings and conferences on the area, regional, state, and national levels

—engage in practical problem-solving and decision-making

—learn the value of competition on various levels by experiencing the responsibility of success as well as the challenge of defeat

- —plan and participate in a variety of social events that provide recreation, socializing, and just fun. Social gatherings with visitors attending receive public interest and awareness as well as involvement.
- —develop confidence in their own abilities through the participation in student organization activities and through their contacts with business persons, teachers, employers, and other students from various parts of the country.
- —develop attitudes necessary for success in a business career
- —develop the type of leadership needed today in preparation for an active leadership role for tomorrow

Student organization programs of activity have so many advantages for the students, the teacher, the school, and the community that they need to be part of the classroom program and not a co-curricular activity. Integration of student organization activities into the classroom is desirable.

Preservice Business Teacher Preparation

The preparation and certification of business teachers is guided and/or prescribed by several accrediting groups including National Council for the Accreditation of Teacher Education (NCATE), National Association of Business Teacher Education (NABTE), North Central Association, American Assembly of Collegiate Schools of Business (AACSB), the Association for Teacher Education, and the Illinois State Board of Education. The plethora of advice given by these groups is complemented by business educators themselves who continue to seek ways by which better teachers can be prepared and by individual institutions which prescribe curriculum.

Business Content

The greatest effort during the 1970's has been to provide these persons with a stronger business administration background than in earlier years. An American Assembly of Collegiate Schools of Business (AACSB) accredited institution requires 27 semester hours in business administration courses in addition to 6 semester hours in economics for all business students, including those in business education if this program is housed in the College of Business. In the minds of many business educators, the increased emphasis in Accounting, Economics, Data Processing, Finance, Business Law, Management and Marketing preparation for prospective teachers is the most hopeful curricular development of the decade. The outcome is that regardless of the subjects the beginning teacher may be asked to teach, that person will have an overall understanding of business; unfortunately, this has not always been true in the past. The effort is no longer to train a good accounting-shorthand-typewriting teacher but rather to prepare good skill and non-skill teachers who understand the workings of the business world and can transmit these knowledges to high school students in all types of business courses. (Note: If these business administration courses do not appear on an undergraduate record, they are considered deficiencies for a graduate program in an AACSB college.)

The instruction in typewriting, shorthand and business machines is usually the responsibility of the business education department. Advanced placement is possible in these subjects, depending on previous instruction the student has received in the secondary school or community college.

In view of the state mandate for study of consumer education in the secondary schools, another crucial offering is Consumer Economics. This is also the responsibility of the business education department. Another area of increasing importance is instruction in Business Communications. Many college students are taking advantage of the opportunity to learn this increasingly important skill. These courses may be found in the business education department or in one of the business administration areas.

General Education

Basic to all other preparation for the business teacher is the general education subjects which every college student is required to study. Most colleges require that 40-60 percent of the students' programs draw from the fine arts, humanities, mathematics, sciences, and the social sciences.

Professional Courses

Very important too are the pedagogical courses required of the prospective teacher. A portion of this instruction is provided by teacher preparation colleges and others by the business education programs. A six semester hour course in human growth and development and a five semester hour course in foundations of education and evaluation are generally minimal education requirements.

Ideally, the methods courses and supervision of student teachers are taught by business educators. The amount of methods work ranges from two semesters hours to more than twelve semester hours in some institutions. Different patterns in methods instruction exist. At one extreme is the availability of only one methods course called "Methods in Vocational Education." This does not provide the student with the kind of specific information needed at this point. Neither does a general methods course taught by non-business educators. The pre-service teacher has need for detailed instructional plans for teaching each high school business course as well as the opportunity to gain familiarity with published materials in all business areas. Preferably the student can be afforded the opportunity to experience sound methods work in the skill subjects, in the non-skill subjects, and optionally in distributive education, office education, data processing, and machines. A variety of methods courses will provide the high school business teacher with a broader perspective. Generally, the fear of teaching a variety of subjects will be lessened if prospective teachers have the security of special methods courses which provided the opportunity for a great deal of student involvement. The greater the student-based activities in methods, the greater the degree of confidence.

Business educators have been urged by research findings and by accrediting agencies to begin clinical experiences earlier and continue them throughout the program. Hence, many business students start as freshmen in learning about the profession of business teaching. They visit business classrooms, attend meetings and conventions, join student organizations and read professional literature. A high degree of student involvement is continued in education courses and in business methods. Students usually spend a week or two in local high schools, observing, lesson planning and teaching one or two business subjects. This prestudent teaching participation takes place under the careful guidance of a master teacher in the secondary school and the business methods instructor. A minimum of 100 clock hours of preclinical experiences is a requirement of the Illinois State Board of Education.

Videotaping for Teacher Self-Appraisal in Methods Courses

For the scientific study of teaching, the portable videotape machine is the single most promising device of the century for the improvement of teaching skills. Teacher characteristics, such as voice, gestures, and speech patterns, are the most obvious areas requiring self appraisal. Voice and speech patterns could be assessed through the use of an audiotape recorder, which for many years has served as a useful device in improving the speech and dictation patterns of beginning teachers.

The preservice teachers can study their teaching procedures. Questions such as "Did I get the students' interest in the topic (set induction) before launching the unit?" "Were my questions and instructions clear and concise?" "Did my developmental activities involve individuals in such a way that I could see and analyze closure at the end of certain portions of the instruction?" Teacher closure (summary) is important, but cognitive closure (overt demonstration of learning by the students) is the real proof as to what has been learned.

No audiovisual technician is needed in the classroom to videotape a lesson if portable equipment is used. Any student in the class can learn in a few minutes how to set up the machine and "pan" the camera from teacher to students. No special room arrangement is required and one microphone will usually record all of the voices if the acoustics treatment is average or better. A quality portable videotape recorder, with all the necessary accessories, can be purchased for under $2000; one hour half-inch tapes cost approximately $18 and are reusable. No school district or teacher education institution can afford to deprive new or experienced teachers of the opportunity of periodic self-appraisal by pleading the lack of equipment. Beyond using the videotape recorder as a preservice or inservice device to improve teaching skills, business teachers should have such equipment available for recording special kinds of class activities such as sales presentations, role-playing, telephone usage, and debates, which can then be replayed for student critique.

Through videotaping, teachers can analyze the entire teaching performance. Psychologically, the most effective supervision or improvement of teaching skills occurs if the individual teacher motivates himself or herself, rather than being "criticized" or "instructed" by a supervisor. Furthermore, this is an important characteristic of any true profession—the constant search for greater effectiveness of self.

Business Experience

Actual business experience continues to be a most important ingredient in the recipe for preparing effective business teachers. Some universities offer a summer internship for undergraduates (as well as for graduate students) to help supplement previous experience. Other colleges offer a semester or academic year of internship at the undergraduate level. The Illinois State Board of Education requires 2,000 business employment hours for classroom teachers of skill subjects typically at the eleventh through fourteenth grade levels or for cooperative occupational coordinators to qualify for vocational certification.

Student Teaching

Student teaching is the clinical experience in which the prospective business teacher is guided in learning and teaching activities in a public high school, junior high, or community college for a period of nine weeks or more. The student teacher has met the requirements of the university for business content, general education, and professional courses. Methods courses provide excellent insights and techniques as a stepping stone into the student teaching experience.

Student teaching is a time of transition for the individual from the role of a college student to that of a teacher. Observations are made to gain an understanding of the new situation, the students, and the learning activities currently being used, and to allow the student teacher, the cooperating teacher, and the students to develop a rapport with each other. During this time the student teacher is active in assisting, getting acquainted, preparing lesson plans, and doing bit teaching.

The student teacher gradually assumes responsibility for the classes. He/She teaches one class at a time until all are being taught. It is desirable to teach in skill and non-skill courses, to have more than one cooperating teacher, to carry less than a full load to allow for learning and quality teaching, to teach students of different age levels, and to have classes scheduled so that daily conference time is available with each cooperating teacher. This is a time when the prospective business teacher applies all of his/her previous learning and learns from his/her cooperating teachers and students; this is an example of being both student and teacher.

Role of the Cooperating Teacher

The cooperating teacher is the teacher in the junior high, high school, or community college who shares the teaching responsibility of current classes so that the student teacher may gain guided teaching experience with actual classes. The cooperating teacher is a key influence in the development of the student teacher from the role of student to that of teacher. The real heart of student teaching is the guiding, feedback, and sharing of the cooperating teacher with the student teacher. In most cases there are more teachable moments during student teaching than at any other time during a teacher's preparation or career. It is essential for our profession and the individual student teachers that the opportunity for serving as a cooperating teacher be given high priority, careful consideration, and the best efforts of the experienced teacher. Cooperating teachers should have excellent professional background, considerable teaching experience, be master teachers themselves, and be sincerely interested in the development of new teachers.

Role of the University Supervisor

Ideally, the university supervisor is a business teacher who has mastered the art of teaching and is perceptive to the needs of teachers and students. The university supervisor is an important member of the team providing support, suggestions, and guidance to the student teachers and cooperating teachers. Observations of performance can be objective and should result in assistance being given. Insights gained in working with many student teachers can provide solutions to concerns that may develop on the part of the student teacher or cooperating teacher. Meaningful communication is an important link between and among all members of the team. The university supervisor serves as a liaison between the university and the public school and often shares new developments and materials with the teachers.

Teaching Internships

Illinois at present does not permit teaching internships, but some other states are using internships as alternatives to student teaching. A teacher intern works under the supervision of an experienced teacher, is guided by a university supervisor who makes regular visits, and receives college credit for the internship program. Characteristics of an internship which differ from student teaching are more time required for the clinical experience, financial remuneration received for services to the local school, full responsibility usually given for a limited number of classes throughout the semester, and special certification arrangements with the state.

Inservice Business Teacher Education

The education of a great teacher is said to never end. Continuing education for a business teacher takes many forms. Teachers learn from:

1) contact with students
2) review of subject matter in the process of teaching
3) visits to and study of local business firms
4) membership and participation in professional organizations
5) continued involvement in graduate programs

The above learnings are of a self-imposed nature. Other activities of an inservice type may be imposed by the department, principal, district or state. These take the form of committee work, department meetings, required district inservice programs and state workshops. Service on North Central Association accreditation visits and work with student teachers also result in learning—some pleasurable and some not!

Although at times the busy teacher finds some of these experiences to be odious, the long-run result must be one of growth as well as one which is expansionary to thought. As with all things, the teacher's attitude determines the real value of these experiences. For one who sits back and "says nothing, does nothing" there will be little satisfaction or little benefit to students. In recent years there has been a noticeable emphasis in organization programs, inservice programs, and graduate programs to assist experienced teachers in becoming better classroom teachers. This effort has been long overdue and if continued should result in more effective teaching.

Teachers wonder how administrators can rate teaching if there are few (or any) classroom visits. Administrators claim there are many indicators of good or bad teaching and that these are evident without classroom visits. This argument will grow more acute as student enrollments decrease and separation of staff becomes necessary. The primary responsibility of any professional, however, is that of continued self-appraisal; a videotape can be of immense help in this effort.

Business Education for the Seventies offered the following criteria for use in evaluating the local business education program. Additional criteria have been added to reflect new emphases for the eighties.

1. Do the philosophy, purpose, and statement of objectives reflect current trends?

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2. Is the content of basic business courses determined by study and analyses of the everyday needs of students and other members of the community for knowledge about business and economics? Are curriculum guides available in the various subject areas to show the pattern of implementation of the consumer education requirement?
3. Are the course sequences well planned and designed to meet specified objectives of the students?
4. Is the curriculum content articulated and geared to the needs of students and subjected to continuous review and revision?
5. Are there programs available that serve all types of students, including the handicapped and disadvantaged?
6. Is there evidence of financial support from the administration for the programs?
7. Is there evidence of teacher involvement in the planning, developing, implementing and expanding of programs?
8. Are vocational education student organizations operated as an integral part of the instructional program?
9. Are instructional personnel qualified by educational training and occupational experience for the vocational education program?
10. Does the program consist of meaningful instruction in skill training as well as work attitudes necessary for employment in business, marketing, and management occupations?
11. Does the vocational education program consist of simulated experiences found in business and industry?
12. Is there an active, continuing advisory council for the vocational business education program?
13. Does the program provide for guidance, placement, and follow-up of students in the vocational business education program?
14. Is there evidence of articulation with other educational agencies?
15. Are the facilities, equipment, space, and instructional materials adequate to provide quality and up-to-date instruction?
16. Are the courses of sufficient length to permit development of a salable skill in the occupational education program?
17. Does the classroom instruction include a variety of teaching methods and techniques?
18. Is there an approved one-year and five-year vocational plan?
19. Have provisions of the local plan been made known to the faculty?
20. Has an adequate survey of occupational needs and job opportunities in the community been made?
21. Is the program sufficiently attractive to retain the services of high-quality teachers?
22. Is there a well-planned program of public relations?[1]

Other questions which may be asked:

1. Are the learning activities and experiences planned to eliminate sex bias?
2. Does the department chairperson serve as a model, exhibit the traits of a master teacher, take appropriate leadership responsibilities, provide the needed services to the department, and inspire the teachers to continuous inservice development?
3. Have competency based programs been developed?
4. Are members of the business education staff involved in justification and preparation of an annual budget?
5. Is there a locally directed evolution system for the business education department?
6. Are local follow-up studies utilized in the revision-improvement of the business education program?
7. Is cooperative education an integral part of the business education program?

Accrediting and Certifying Agencies

Secondary Schools

General State Accreditation

The Illinois Constitution of 1970 requires the state to ensure an efficient system of high-quality public education which provides maximum education opportunities for the unique and diverse needs of all children and youth. It provides for a State Board of Education which establishes goals and policies that will give direction to the State Superintendent, and to local school boards to implement this mandate.

Each district is periodically visited by an evaluation team for the purpose of recognition. The team, which is headed by a representative of the Public School Approval Section of the Illinois State Board of Education, includes the respective Regional Superintendent (or a designee) and at times other appointed educators. They evaluate the over-all curriculum and services offered for students in order to determine the extent to which the district is meeting state requirements and to see if the district's annually-prepared Program Plan is being carried out.

A district which meets the minimal standards required and which has submitted an Annual Application for Recognition is granted Full Recognition. One which has not met minimal standards is given Probationary Recognition. This serves as a warning that certain improvements are needed. Nonrecognition indicates that the center or district has failed to submit an Annual Application for

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[1] Woolschlager, Ruth B., Editor, et al. *Business Education for the Seventies*, Office of the Superintendent of Public Instruction, Vocational and Technical Education Division, Springfield, IL, 1972, pp. 279-281.

Recognition, does not meet legal requirements, or does not give evidence of meeting minimal standards. Schools receiving this rating are not eligible to file for state funds or to receive tuition from other school districts. "Pending Further Audit" may be assigned to a district just visited because of limited violations which could be corrected within the current school year. This is a temporary condition and not an official recognition status.

The school evaluation form, submitted by the visiting team, provides an extensive checklist to determine whether or not the district is in compliance with state standards. This form is divided into the following broad areas:

Section 1. Board of Education
Section 2. Administration
Section 3. Ancillary Services
Section 4. Curriculum
Section 5. Certification and Qualifications

A summary sheet lists Commendations, Observed Areas of Noncompliance, Areas of Concern, and Recommended Recognition Status.

The Illinois Program for Evaluation, Supervision, and Recognition of Schools, State Board of Education Document Number 1, issued in 1977, lists the following minimum education requirements for certification of Business Education teachers:

24 semester hours, which shall include a specialized methods course with the following minimum qualifications for the subject matter areas or course taught:

Typing	6 semester hours, or a statement of equivalency from the institution granting the degree, or the completion of the terminal course in the typewriting sequence.
Shorthand and Transcription	6 semester hours, or a statement of equivalency from the institution granting the degree, or the completion of the terminal course in the shorthand-transcription sequence.
Bookkeeping, accounting, record keeping	6 semester hours in accounting and a course in data processing, or a statement of equivalency from the institution granting the degree.
Business law	3 semester hours of business law
Distributive subjects; i.e., marketing, retailing, distributive education	8 semester hours covering at least two of the following: sales, retailing, advertising, principles of marketing.
Business arithmetic	2 semester hours in business mathematics or 6 semester hours in accounting.
Office practice, secretarial practice, clerical practice, or office machines	2 semesters hours in course work which includes the operation of the office machines taught in the secondary school course and qualifications for teaching whichever of the following is part of the course: typewriting, shorthand, bookkeeping (see paragraphs as aforementioned).
Basic business, general business, introduction to business, business principles	3 semester hours of consumer education; 3 semester hours of economics and at least 4 semester hours in any two of the following areas: business law, introduction to business, marketing, management, or a methods of teaching basic business.
Business English	2 semester hours in business English, business correspondence, business communications, or business writing.
Business economics	8 semester hours in the area of economics, finance, financial management, or marketing, including at least one course in principles of economics.
Data processing	5 semester hours in data processing or the equivalent.[2]

State curriculum requirements that directly affect Business Education are:

1. Career Education.
    a. The educational system shall provide every student with opportunities to prepare themselves for entry into the world of work.
    b. Every district shall initiate a Career Awareness and Exploration Program which should enable students to make more meaningful and informed career decisions. This program should be available at all grade levels.[3]

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[2] *The Illinois Program for Evaluation, Supervision, and Recognition of Schools, State Board of Education Document Number 1,* October 1, 1977, pp. 30-32.

[3] Ibid., p. 15.

Not only can business educators orient their course content to the world of work but they can also use simulations, invite guest speakers from business, and take students on field trips to help make classroom information more meaningful. Area Vocational Centers allow cooperating schools to expand their curricula by offering courses and programs which would be too costly or otherwise unfeasible for each school to sponsor.

2. Consumer Education and Protection.
   a. Pupils in the public schools in grades 8 through 12 shall be taught and be required to study courses which include instruction in the area of consumer education including, but not necessarily limited to, installment purchasing, budgeting, comparison of prices and an understanding of the roles of consumers interacting with agriculture, business, trade unions, and government in formulating and achieving the goals of the mixed free enterprise system. (*The School Code of Illinois*, Section 27-12.1).
   b. A program in consumer education may include the following topics: the individual consumer in the marketplace, money management, consumer credit, human services—housing, food, transportation, clothing, health services, drugs and cosmetics, recreation, furnishings and appliances, insurance, savings and investments, taxes, and the consumer in our economy.
   c. Teachers instructing in consumer education courses shall have proper certification for the position to which they are assigned with at least three semester hours in consumer education courses.[4]

Most business educators have had preparation in the state-required areas. Thus, they are qualified to teach a consumer education course.

3. Conservation of Natural Resources.
   a. In every public school district there shall be instruction, study and discussion of current problems and needs in the conservation of natural resources, including, but not limited to air pollution, water pollution, the effects of excessive use of pesticides, preservation of wilderness areas, forest management, protection of wild life, and humane care of domestic animals. (Section 27-13.1 of *The School Code of Illinois*)
   b. It is recommended that the study of conservation also include energy demands, population growth and distribution, food production, transportation systems, solid waste disposal, and noise abatement.[5]

While this topic is usually taught by departments other than business, one can note definite business overtones in such subjects as air and water pollution, energy demands, population growth and distribution, food production, transportation systems, solid waste disposal, and noise abatement.

4. Metric Education.
   By 1980, every school system shall provide measurement instruction based upon the International System of Units in those subject matter areas which include measurement activities.[6]

This is a requirement in those subject matter areas which include measurement activities. Consequently, some business education courses are directly affected.

Vocational Accreditation (Reimbursable Training Programs)

Occupational education programs receive additional funds from the State and Federal governments and are administered by the Illinois State Board of Education, Department of Adult, Vocational and Technical Education. All instructional personnel and coordinators of these programs must hold a valid teaching certificate. Additional requirements are:

1. A minimum of 2,000 hours of employment experiences in the occupational specialty to be taught.
2. Where an individual does not meet the provisions listed above, the district may employ such a person providing the employment experiences requirement will be met within four (4) years from the date of employment by (a) 2,000 hours of employment experience in the occupational specialty to be taught or (b) a combination of employment experience and directed occupational experience equivalent to the 2,000 hour employment experience requirement. Options of this paragraph must be submitted in detail in the district's One- and Five-Year Plan for occupational education and are subject to approval.
3. For those occupations in which employment or preparation is regulated by law or licensure, compliance with those laws is mandated.

Cooperative Education Teacher Coordinators must meet the following requirements (in addition to those for instructional personnel listed above): 16 semester hours in the field, which shall include a methods course in the occupational specialized area: in addition, 6 semester hours in the area of organization and administration of cooperative occupational education, coordination techniques, and individualized instructional methodology.

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[4] Ibid., pp. 15-16.

[5] Ibid., p. 16.

[6] Ibid., p. 17.

The Illinois State Board of Education, Department of Adult, Vocational and Technical Education employs a Three-Phase System for Statewide Evaluation of Occupational Education Programs. Phase One is the development of the local One- and Five-Year Plan for Occupational Education, and Phase Two constitutes the State's approval of this plan. Phase Three consists of on-site visitation of schools by a team of educators, students, and business and industry personnel to evaluate not only the program as carried on in the school but also such items as follow-up of graduates and community opinion of the program. Accordingly, business people, lay citizens, and former students are interviewed by the team to determine their impressions of what is being accomplished. Prior to the visit, the faculty fills out a Preliminary Evaluation instrument which helps to make the team aware of some strengths and weaknesses.

The Evaluation Report includes an assessment of components which are deemed necessary for effective and efficient operation of a district or school's total occupational education program. Each of the sections contains conclusions, recommendations, and suggested improvements. Also included is a Report Summary which presents an overview of the major strengths and areas needing attention.

Local educational agencies are required to react to each recommendation made by the on-site evaluation team. What the local educational agency plans to do in response to each on-site recommendation becomes a part of the next year's One- and Five-Year Plan.

Recent vocational education legislation places emphasis upon the quality and effectiveness of the vocational programs. Particular attention is given to:

1. The use of local advisory committees
2. Equal and nondiscriminatory access to programs
3. Programs for the handicapped and disadvantaged
4. Follow-up of the students to determine their success in obtaining employment and attaining job satisfaction and to determine how employers rate the students as employees and why.

Congress in 1981 will review the strategy of vocational education to determine potential for impact. In 1981 and thereafter the role of the federal government in vocational education will be reexamined and the impact of the program activities supported by federal funds will be determined. Information will be forthcoming in the 80's from the National Institute of Education studies which are currently being done.

Future evaluation systems will no doubt be designed which will assist local programs and states to determine the extent to which the needs of special subpopulations have been met. These special subpopulations include: women, members of minority groups, handicapped persons, disadvantaged persons, and persons of limited English speaking abilities.

Evaluation systems in the future will also focus heavily upon:

A. **Planning and Operational Processes,** such as:
   1. Quality and availability of instructional offerings
   2. Guidance, counseling, placement and follow-up services
   3. Capacity and condition of facility and equipment
   4. Employer participation in cooperative programs of vocational education
   5. Teacher/pupil ratios
   6. Teacher qualifications

B. **Results of Students Achievement as Measured,** for example by:
   1. Standard occupational proficiency measures
   2. Criterion referenced tests
   3. Other examinations of students' skills, knowledge, attitudes, and readiness for entering employment successfully.

C. **Results of Student Employment Success as Measured,** for example by:
   1. Rates of employment and unemployment
   2. Wage rates
   3. Duration of employment; and
   4. Employer satisfaction with performance of vocational education students as compared with performance of persons who have not had vocational education.

North Central Accreditation

Membership in the North Central Association is voluntary. A secondary school's application for membership is judged on the basis of its total effectiveness in meeting the educational needs of its students. Accreditation is for one year. However, its certificate of membership is valid as long as the school satisfies the conditions for accreditation established by the Commission of Schools and is fully approved or accredited by the legally constituted or recognized accrediting agency in the state. Secondary schools desiring to continue membership are required to submit an annual report and such supplementary reports as the Commission on Schools finds necessary in order to accredit schools.

To encourage continued improvement in the development of quality programs, member schools are evaluated at least once during each seven-year cycle. A visiting team, chosen by the school, appraises all phases of the program. However, before the team's arrival, the school devotes at least a semester to accomplishing a comprehensive self study, using the *National Study of School Evaluation* as a guide. The exhaustive self-study of Business Education is divided into the following sections:

1. Organization
2. Nature of Offerings

3. Physical Facilities
4. Direction of Learning
    a. Instructional Staff
    b. Instructional Activities
    c. Instructional Materials
    d. Methods of Evaluation
5. Outcomes
6. Special Characteristics of the Business Education Program
7. General Evaluation of Instruction in Business Education

A similar self-study guide is used for Distributive Education.

Full information on North Central Accreditation is found in the booklet, *Policies and Standards for the Approval of Secondary Schools*. The address of the Commission on Schools is 1221 University Avenue, Boulder, Colorado 80302. The National Study of School Evaluation address is 2201 Wilson Boulevard, Arlington, Virginia 22201.

Community Colleges

The North Central Association of Colleges and Secondary Schools grants accreditation to a community college after an exhaustive study is conducted to determine that the school's programs and support services meet the North Central Association's criteria. Self-studies as well as on-site visitations are used in making recommendations for accreditation.

In addition to a school's approval that is granted by the North Central Association, special programs can be granted accreditation. Two examples are approval of real estate programs granted by the Illinois Department of Registration and Education and of medical office assistants programs by the American Medical Association.

Senior Colleges and Universities

These institutions may receive undergraduate and/or graduate accreditation from the American Assembly of Collegiate Schools of Business. Most schools also seek North Central Association accreditation; and if involved in teacher education, they may be accredited by the National Council for Accreditation of Teacher Education.

Private Business Schools

Private business schools must be approved through the Non-Public School Approval Section of the Illinois State Board of Education. Annual reports including academic and financial information are required. Regular visits from state personnel also take place.

These schools may seek the accreditation of the Association of Independent Colleges and Schools, Suite 401, 1730 M St. N.W., Washington, D.C. 20036, if they have been in existence at least two years. A comprehensive self analysis, including the following areas, must be prepared:

1. Philosophy and Objectives of the Schools
2. Educational Program
3. Organization, Administration, and Control
4. Academic Staff, Instruction
5. Administrative Staff
6. Library and Instructional Materials
7. Financial Relations With Students
8. The School Plant
9. Admission, Graduation, Student Services
10. Publications

A campus visit by an association team reviews the application and self analysis to determine eligibility for accreditation. If granted, such accreditation is for a term of one to six years. Annual reports on academic programs and financial status are required to maintain accreditation status.

The Image of Business Education in the School and Local Community

"Executives Give U.S. Schools a 'C' in Job Preparation" (*Wall Street Journal*); "Schools Failing to Prepare Youngsters for Adult Roles, National Study Shows" (*The School Administrator*); "Citizens Ask Major School Changes for Efficiency" (*The Chicago Tribune*).

As taxes rise at an alarming rate and citizens become more concerned about the use of their tax dollars, educational institutions are facing increasing public scrutiny and are called upon for greater accountability. A community's impression of the local educational system is influenced largely by the extent to which that community's needs are being met by high school graduates.

Similarly, business education is evaluated by the community on the basis of the job performance of its graduates. Because its objectives are specifically job-oriented and objectively measurable, business education must be prepared to address the criticism leveled at high school graduates and the schools which train them.

Since so much of the criticism concerns basic communication and computational skills and since these skills are put to the test in an office environment, business education is held culpable if graduates are deficient. Business educators must confront the task of producing proficient graduates, no matter what their prior level of achievement. Remediating existing deficiencies will require ingenuity and resourcefulness as teachers intensify efforts to provide business and industry with highly-skilled employees.

Another important aspect of placing graduates who will project a positive image for business education is the training for proper grooming, attitudes, and personality. The findings of Dr. Lucille Wright of Cleveland State University, summarized in an article aptly entitled "They Don't Hire the Uglies" (*AVA Journal*), November, 1975, p. 49 ff, indicate a high correlation between personal appearance and initial employment. One hundred per cent of the personnel directors participating in the study who viewed videotape recordings depicting four applicants for the position of clerk-stenographer chose the most attractive applicant, as did 91 per cent of the cooperative education teachers and 80 per cent of the intensive office education teachers. Once the skills of the applicants were evaluated, 67 per cent of the personnel directors, 50 per cent of the office education teachers and 45 per cent of the cooperative office education instructors found that their initial choices, based on personal appearance, had been valid. If these findings are valid in the Cleveland area, it is probable that they will be corroborated in other metropolitan areas. It would seem apparent, then, that students must be taught to develop and maintain an attractive personal appearance in order to be afforded the initial opportunity to demonstrate their skills.

Obviously, the image of business education is promulgated by means other than the performance of graduates employed in the community. Positive as well as negative impressions of business teachers and business programs are carried into their homes by students. Business educators must strive to avoid attitudes and actions which might be translated into negative images; they must take advantage of the many opportunities to promote positive images through activities in churches, community organizations and volunteer groups. They must meliorate the image of business education in school and community through their own mien and presence.

Fortunately, in spite of the extreme relaxation of dress codes, business educators generally seem to maintain their personal images as attractive, well-groomed individuals; and many are still able to insist upon these standards for their students.

Business education students and teachers can and should be highly visible forces for projecting a favorable impression of their field in their school environment as well as in the community. Dressing and comporting themselves in a businesslike manner, volunteering to assist in school projects, preparing attractive bulletin boards, and publicizing business education activities in school publications are some of the methods by which business students and teachers can convey the vitality of their department to the academic community as a whole.

We are living in an era when the general public experts all of the deadly sins to be expiated in the educational milieu. The business teacher who understands and assumes the obligation imposed by society on all educators must adopt as a guiding principle, "Do as I say *and* do as I do."

Only when headlines read: "Executives Give U.S. Schools an 'A' in Job Preparation;" "Schools Succeeding in Preparation of Youngsters for Adult Roles;" "Citizens Commend Schools for Efficiency;" can business educators rest on their laurels.

Summary Statement

Business teachers are professional because they care about the students and want them to have the best possible education. They have the following characteristics: are competent, motivated, self-disciplined; have a sound basic philosophy, healthy attitudes, deep commitment, and sense of direction; work with other professionals and business; meet the requirements of the certifying and accrediting agencies; and continue to learn, grow, and contribute to the growth of others.

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APPENDIX A

COMMUNITY OCCUPATIONAL SURVEY

Community Occupational Survey

Firm: ______________________ Date: __________

Address: ______________________

Contact Person: ______________________

Types of Products Manufactured/Sold or Services Rendered: ______________________

Employment Data

	Job Title	No. Male Employees	No. Female Employees	No. of Additonal Workers You Will Probably Employ Within Next 12 months
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

PART II

In your analysis of the employment outlook, as it appears today and as you predict for the future, what types of vocational training should take place in our high schools? Please consider your specific field, as well as allied occupations and those of which you have some knowledge. Several occupational fields have been listed for your convenience; however, please add any others you feel should be included. Please check those that you feel are appropriate.

1. Drafting ________
2. Building Trades ________
3. Auto Mechanic ________
4. Ag-Mechanic ________
5. Machinist ________
6. Auto Body ________
7. Appliance Repair ________
8. Sheet Metal Worker ________
9. Welding ________
10. Electrician ________
11. Electronics Tech. ________
12. Plumbing ________
13. Ref. & Air Cond. ________
14. Graphic Arts ________
15. Printing Trades ________
16. Licensed Pract. Nurse ________
17. Nurse's Aide ________
18. Conservation Tech. ________
19. Ag-Business ________
20. Horticulture ________
21. Bookkeeping ________
22. Secretarial ________
23. Office Machine Opr. ________
24. Key Punch ________
25. Business Math. ________
26. General Sales ________
27. Marketing ________
28. Beautician ________
29. Barbering ________
30. Seamstress ________
31. Tailoring ________
32. Shoe Repair ________
33. Custodial ________
34. Waitress/Waiter ________
35. Child Care Aide ________
36. Serv. Sta. Opr. ________

____

Recreation and Tourism ________

1. Food Services ________
2. Housekeeping ________
3. Groundskeeper ________
4. Sales & Promotion ________

If an improved adult education program was instituted, what areas should be planned that might interest your firm or employees?

Would a representative from your firm be interested in acting in an advisory capacity to help upgrade or develop vocational programs? YES NO

COMMENTS OR SUGGESTSIONS

Source: *Handbook for Cooperative Vocational Education in Illinois* (Springfield, IL: Illinois Office of Education, Department of Adult, Vocational and Technical Education, n.d.), p. 101.

Name of Firm ______________________ Name of Respondent ______________________

Number of Employees ____

PART I

In the spaces below list the job titles and the other information requested about your employees. Please keep in mind we are only interested in those positions that do not require college training. When listing different categories, do not be too specific. For instance, rather than list a turret lathe operator, you should list machinist. We are looking for such classifications as auto mechanic, bookkeeper, clerk-typist, nurse's aide, food service worker, sales clerk, nursery worker, welder, machine operator, tractor mechanic, etc.

TYPE OF JOB	ESTIMATED AVERAGE NO. ON PAYROLL PER MONTH THIS YEAR	PREDICTION OF YOUR EMPLOYMENT NEEDS FOR THE NEXT FIVE YEARS (19 to 19) Increases (check one)			Decreases (check one)		LOCAL SUPPLY OF QUALIFIED EMPLOYEES (check one)		
		Great Incr. Ov. 20%	Small Incr. 5-20%	Same Under 5%	Great Decr. Ov. 20%	Small Decr. 5-20%	Scarce	Adequate	Surplus
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

APPENDIX B

VALUES CLARIFICATION

APPENDIX B

Values Continuum

The teacher can construct an environmental Value Continuum and place it on the chalkboard. Have the students...(indicate) their position....(and) some of the reasons for selecting their position.

What is your position on these value lines?

Returnable Ron

He uses only returnable containers and will not eat or drink anything that comes in a throw-away container.

No-deposit Norris

He uses only nonreturnable containers because he thinks that returnables are too much trouble to take back.

Bike-riding Betty

She doesn't use any vehicles that pollute the air and therefore rides her bike to work forty miles away each day.

Motoring Mable

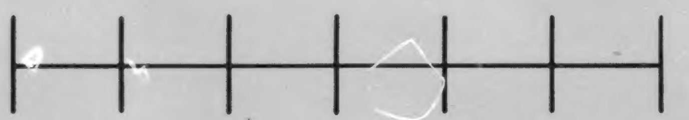
She uses motor vehicles every chance she gets. She even retrieves the evening paper by taking the car down the driveway of her home.

Pure-air Paul

He is so opposed to air pollution that he takes short breaths so he won't add as much carbon dioxide to the air.

Polluted Polly

She is so uncaring about air pollution that she burns cigarettes for incense.



Let-live Larry

He is so against any type of pesticide that he allows mosquitoes to bite him rather than spray them.

Pesticide Pete

He uses pesticides so freely that he sprays his house and back yard daily to get rid of insects.

Source: Herrill Harmin, Howard Kirschenbaum, and Sidney B. Sion, *Clarifying Values Through Subject Matter: Applications for the Classroom* (Minneapolis: Winston Press, Inc., 1973), pp. 124-126.

APPENDIX C

MAINSTREAMING

Bibliography
and
Teaching Materials and Aids

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TEACHING MATERIALS
STUDENTS WITH SPECIAL NEEDS

Source No. 1

Title: Vocational Entry Skills for Secondary Students
Author: Winifred Washburn, 1977
Content: Instructional material specifically designed to meet the educational and vocational needs of the secondary learning disabled student
Publisher: Academic Therapy Publications
P.O. Box 899
1539 Fourth Street
San Rafael, CA 94901

Source No. 2

Title: Typing Keys for Remediation of Reading and Spelling
Author: Maetta Davis, 1977
Content: Instructional material specifically designed for the needs of vocational learning disabled students on the secondary level.
Publisher: Academic Therapy Publications
P. O. Box 899
1539 Fourth Street
San Rafael, CA 94901

Source No. 3

Title: Fundamentals of Vocational Spelling
Author: Merle W. Wood
Content: Non-rules oriented approach gives student the opportunity to analyze personal spelling problems and master vocational spelling concepts.
Publisher: Western Tape Company
2761 Marine Way
P. O. Box 69
Mountain View, CA 94042

Source No. 4

Title: Effective Listening
Author: Evelyn Jenkins
Content: A six-lesson program to improve listening skills. Particularly valuable for the blind or partially sighted student.
Publisher: Western Tape Company
2761 Marine Way
P. O. Box 69
Mountain View, CA 94042

Handicapped and Special Education In-Service Materials

Source No. 1

Title: Mainstreaming: With Special Emphasis on the Educable Mentally Retarded
Order No. (1800-1-OD)
Content: In-service training materials for mainstreaming
Publisher: NEA Order Department
Academic Building
Saw Mill Road
West Haven, CT 06516

Source No. 2

Title: The Educable Mentally Retarded Student in the Secondary School
Order No. (1033-7-1D)
Content: In-service training with emphasis on secondary level
Publisher: NEA Order Department
Academic Building
Saw Mill Road
West Haven, CT 06516

Source No. 3

Title: Mainstreaming: What Teachers Say Series
Order No. (2000-6-OD)
Content: Four cassette tapes with printed overview and discussion questions
Publisher: NEW Order Department
Academic Building
Saw Mill Road
West Haven, CT 06516

Source No. 4

Title: The Education For All Handicapped Children Act of 1975
Order No. No. 136
Content: A multi-media package for in-service training which includes three captioned filmstrips, three audio cassettes, a copy of the law, question-answer document, and a script. Other laws and suggested resources are referenced
Publisher: The Council for Exceptional Children
Publication Sales
1920 Association Drive
Reston, VA 22091

Source No. 5

Title: Mainstreaming: Origins and Implications
Order No. No. 135
Content: A critical examination of issues and concerns underlying the current nation-wide movement toward mainstreaming
Publisher: The Council for Exceptional Children
Publication Sales
1920 Association Drive
Reston, VA 22091

Source No. 6

Title: Making It Work: Practical Ideas for Integrating Exceptional Children Into Regular Classes
Order No. No. 120
Content: Contains ideas for setting up model mainstreaming programs at the high school level
Publisher: The Council for Exceptional Children
Publication Sales
1920 Association Drive
Reston, VA 22091

Source No. 7	Title:	Hearing Impaired Children in the Mainstream
	Order No.	No. 127
	Content:	Useful for regular classroom teachers since it describes basic principles and techniques for teaching hearing-handicapped students in regular classes
	Publisher:	The Council for Exceptional Children Publication Sales 1920 Association Drive Reston, VA 22091
Source No. 8	Title:	Mainstreaming: A Practical Guide
	Author:	James L. Paul, Ann Turnbull, William Cruickshank
	Content:	Provides practical assistance for planning and implementing in-service training for mainstreaming
	Publisher:	Syracuse University Press Syracuse, NY 13210
Source No. 9	Title	Medical Problems in the Classroom: An Educator's Guide
	Author:	Charles C. Thomas
	Content:	Assists in the management and educational needs of handicapped children
	Publisher:	Charles C. Thomas 301-327 East Lawrence Avenue Springfield, IL 62717
Source No. 10	Title:	The Hearing Impaired Child in a Regular Classroom: Preschool, Elementary, and Secondary Years
	Author:	Unknown
	Content:	The section on secondary hearing-impaired students should be helpful to the business teacher
	Publisher:	Alexander Graham Bell Association for the Deaf Special Services Department Washington, D. C. 20013
Source No. 11	Title:	Career Education: Exemplary Programs for the Handicapped
	Author:	Thomas P. Lake
	Content:	A discussion of six outstanding career education programs for the handicapped including an overview and philosophy of each program, an explanation of instructional design, a description of personnel and facilities, and suggestions for replication

Source No. 12

Title: Living Fully: A Guide for Young People With a Handicap, Their Parents, Their Teachers, and Professionals
Author: Unknown
Content: One of few books written for the handicapped adolescent to encourage them to view themselves as full participants in determining the direction of their own lives.
Publisher: Academic Therapy Publications
P. O. Box 899
1549 Fourth Street
San Rafael, CA 94901

Source No. 13

Title: A Handbook of Medical, Educational, and Psychological Information for Teachers of Physically Handicapped Children
Content: Excellent Handbook for teachers of physically handicapped students which includes a section on vocational placement
Publisher: Charles C. Thomas
301-327 East Lawrence Avenue
Springfield, IL 62717

Source No. 14

Title: Mainstreaming Exceptional Children: How To Make It Work
Content: Discusses procedures that satisfy the intent of the mainstreaming law with a minimum of disruption
Publisher: Boxwood Press
183 Ocean View Blvd.
Pacific Grove, CA 93950

Source No. 15

Title: P. L. 142 and Deaf Children
Content: Information on how the mainstreaming law relates to the education of deaf children
Publisher: Gallaudet Alumni Newsletter
Gallaudet College
Washington, D. C. 20002

Source No. 16

Closer Look: Publication of the National Information Center for the Handicapped (Free)
Content: Contains helpful information, particularly regarding the handicapped.
Publisher: Closer Look
Box 1492
Washington, D. C. 20013

Source No. 17

Bureau of Education for the Handicapped
U. S. Office of Education
7th and D Street, S.W.
Washington, D. C. 20202

Source No. 18

The National Center for Law and the Handicapped
1235 North Eddy Street
South Bend, IN 46617
(This organization publishes a newsletter, AMICUS, which deals exclusively with the handicapped.)

APPENDIX D

CAREER GUIDANCE CENTERS

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CAREER GUIDANCE CENTERS

The Illinois State Board of Education, Department of Adult, Vocational and Technical Education, initiated the establishment of nineteen Career Guidance Centers in January, 1978. These centers are located throughout Illinois and provide a variety of career guidance services to all local educational agencies, both public and private universities and colleges, as well as other public and private agencies involved in career guidance, and to out-of-school youth and adults.

Recent federal legislation for vocational education (Education Amendments of 1976, P. L. 94-482) has generated funds and guidelines for the provision of career guidance and counseling services. The functions of the Career Guidance Centers encompass this legislation which includes:

1. Assistance in developing quality career guidance and counseling programs.
2. Assistance in providing educational and job placement services.
3. Assistance in working with the unique career guidance needs of youth and adult offenders, limited English-speaking persons, and out-of-school persons.
4. Assistance in recognizing the changing work patterns of women and effectively overcoming sex role stereotyping.
5. Providing leadership for career guidance programs at the local level.

The centers are implementing these goals in a variety of ways, utilizing existing resources and establishing services/activities that will best meet the unique needs of the population in their respective geographical area.

For further information contact the Career Guidance Center in your area or Special Programs Section, Illinois State Board of Education/Department of Adult, Vocational and Technical Education.

The guidance centers are located at:

Highland Community College, Pearl City Road, Freeport, Illinois

Boone-Winnebago Educational Service Region, Courthouse, Room 712, 400 West State Street, Rockford, Illinois

Lake County Area Vocational Center, 19525 West Washington, Grayslake, Illinois

Kishwaukee College, Malta, Illinois

Nash School, Fifth and Madison Streets, Oregon, Illinois

College of DuPage, 22nd Street and Lambert Road, Glen Ellyn, Illinois

Triton College, 2000 Fifth Avenue, River Grove, Illinois

Chicago City-Wide College, 185 North Wabash Avenue, Chicago, Illinois

Thornton Community College, 15800 South State Street, South Holland, Illinois

Joliet Junior College, 1216 Houbolt Avenue, Joliet, Illinois

Urbana School District #116, 304 North Maple Street, Urbana, Illinois

Southeastern Illinois Career Guidance Center, 114 East Washington Avenue, Flora, Illinois

Alexander-Pulaski Vocational Center, 2nd and Washington Streets, Tamms, Illinois

Belleville Area College, 2500 Carlyle Road, Belleville, Illinois

Lewis and Clark Community College, 5800 Godfrey Road, Godfrey, Illinois

Educational Service Region, McDonough County, Macomb, Illinois

Illinois Central College, East Peoria, Illinois

Carl Sandburg College, South Lake Storey Road, Galesburg, Illinois

Each Center within Illinois' network of Career Guidance Centers has a specific geographical area to serve. They are situated in a variety of settings, with two being administered through local unit school districts, four administered via superintendents of educational service regions and the balance administered by community colleges. Although the Centers are located in a particular educational agency, their services "belong" to the geographical area they serve.

Several of the Centers have found a need to provide computerized career information systems to their regions. These systems contain a wealth of career information for use in making career decisions. Activities include: working with local industry to obtain free computer time for implementation of the Guidance Information System; expanding the present computerized job placement system to the entire region of the Center; working with Industry-Education-Labor councils and CETA prime sponsors to make a computerized career information system available to high schools and other agencies. One center works with high school and college students, as well as with clients of social service agencies in providing Telephone Information Playback Services (T.I.P.S.). This system provides service to job hunters, career decision makers, and college job referral information to those dialing a certain number.

Materials and resources are another valuable service offered by the Centers and some unique approaches are being utilized. A series of videotaped, on-the-job occupational overviews produced by one center are available to schools and community agencies wihin the region. A comprehensive "Guide to Free Career Guidance Materials," including national as well as state resources has been developed by one Center. One Regional Center has made the Bell System's *Telexplorer* available to schools in their area. The *Telexplorer*, which is essentially a conference telephone system, is an alternative to field trips and allows educators to bring local resource people into the classroom to discuss their careers without leaving their jobs.

The Career Guidance Centers have a strong commitment to assisting guidance personnel in public and private educational agencies in the improvement of local guidance programs. In-service workshops play a vital role in acquainting guidance personnel with the changing world of work and the changing role of the guidance counselor. Realizing the need for total school involvement, the Centers also work with teachers and administrators to heighten awareness of their role in a quality career guidance program.

Some common activities of the Centers include establishing advisory committees; conducting regional needs assessments; making job placement resources available; communicating resources, activities, ideas and information via newsletters; and conducting and/or sponsoring workshops on any career guidance topic.

APPENDIX E

SUGGESTED COURSE OUTLINE
BASIC BUSINESS AND ECONOMIC EDUCATION PROGRAMS

SUGGESTED COURSE OUTLINE
BASIC BUSINESS AND ECONOMIC EDUCATION PROGRAMS

Suggested Outline of Course Content for General Business (Business I) or Introduction to Business

I. American Business Enterprise
  A. Source of Goods and Service
    1. Production
    2. Processing
    3. Distribution
    4. Service
  B. Types of Business
    1. Agribusiness
    2. Mining
    3. Construction
    4. Manufacturing
    5. Transportation, communication
    6. Wholesale and retail trade
    7. Finance, insurance, and real estate
    8. Services
  C. Forms of Business Organization
    1. Sole proprietorship
    2. Partnership
    3. Corporations
    4. Cooperatives
    5. Franchises
  D. Environment of Business
    1. Business ethics
    2. Profits and costs
    3. Revenues and distribution
    4. Capital formation
    5. Sources of employment
  E. Careers in Business
    1. Exploring clerical careers
    2. Exploring secretarial careers
    3. Exploring data processing careers
    4. Exploring wholesaling and retailing careers
    5. Exploring accounting careers

II. The American Economic System
  A. The Market Economy
    1. Private enterprise
    2. Free enterprise
    3. Capitalism
    4. Guided capitalism
    5. Mixed market economy
  B. How the System Works to Allocate Resources
    1. Freedom of choice
    2. Profit motive
    3. Competition
      a. Pure competition
      b. Oligopoly
      c. Monopoly
    4. Private property
    5. Price determination
  C. Components of the Economy
    1. Consumer-worker-citizen
    2. Producers
    3. Government
    4. Foreign markets
  D. Circular Flow of Economic Activity
    1. Production resource
      a. Land
      b. Labor
      c. Capital
      d. Management
    2. Income
      a. Rent
      b. Wages
      c. Interest
      d. Profit
    3. Spending
    4. Goods and services
    5. Imports and exports
  E. Individuals Functioning in the Economy
    1. As consumers
    2. As producers
    3. As citizens
    4. As investors
  F. Institution in the Economy
    1. Role of money
    2. Role of labor
    3. Role of government
    4. Role of stock market
  G. The Citizen in the Economy
    1. Understanding problems in the economy
      a. Resource depletion
      b. Population
      c. Recession
      d. Inflation
      e. Environment
      f. Unemployment/underemployment
      g. Conservation versus consumption
      h. Balance of trade
      i. Distribution of income
    2. Understanding essential measurements
      a. Gross National Product
      b. Consumer Price Index
      c. Unemployment
      d. Personal income
      e. Productivity
      f. Real income
      g. Public debt
    3. Understanding future economics
      a. Global economic interdependence
      b. Economic planning
      c. Changing technology
      d. Change in life-style
      e. Limits of growth

III. The Consumer in the Economy

- A. Consumerism
  - 1. Consumer power
  - 2. Consumer problems
  - 3. Rights and responsibilities
  - 4. Sources of information
  - 5. Sources of redress
- B. Comparative Shopping—Consumer decision making
  - 1. Information versus advertising
  - 2. Label and packaging
  - 3. Open dating
  - 4. Safety information
  - 5. Energy use
  - 6. Ingredients
  - 7. Warnings
  - 8. Appropriate use
  - 9. Unit pricing
  - 10. Quality seals
  - 11. Warranty information
- C. Using Credit
  - 1. Types of credit
  - 2. Truth in lending
  - 3. Fair Credit Reporting Act
  - 4. Fair Credit Billing Act
  - 5. Equal Opportunity Act
  - 6. Comparing credit costs
- D. Money Management
  - 1. Values and goals
  - 2. Life cycle variation
  - 3. Resources
    - a. Education
    - b. Skills and abilities
    - c. Time - energy
    - d. Income
    - e. Union membership
  - 4. Spending plan and record system
- E. Banking, Savings, and Investment
  - 1. Financial institutions
    - a. Commercial banks
    - b. Savings and loans
    - c. Credit unions
    - d. Insurance companies
    - e. U.S. Government Bonds
  - 2. Purposes of savings
    - a. Future purchases
    - b. Emergencies
    - c. Income earning potential
  - 3. Criteria for savings and investments
    - a. Safety
    - b. Yield
    - c. Liquidity
    - d. Accounting methods
    - e. Day-of-deposit - day-of-withdrawal
  - 4. Purpose of investing
    - a. Increase income
    - b. Growth of capital
    - c. Tax shelter
    - d. Preserve capital
  - 5. Types and characteristics of investments
    - a. Stocks
    - b. Bonds
    - c. Investment companies
    - d. Mutual funds
    - e. Real estate
    - f. Own a business
  - 6. Sources of information for savings and investments
- F. Insurance and Social Security
  - 1. Purpose of Insurance
  - 2. Risk of financial loss
  - 3. Life insurance
    - a. Coverage vested
      - 1) Final expenses
      - 2) Family living expenses
      - 3) Home mortgage
      - 4) Education for children
      - 5) Widow's income
  - 4. Types of life insurance
    - a. Pure protection—term insurance
    - b. Protection plus savings
      - 1) Limited payment
      - 2) Endowment
    - c. Role of Social Security
      - 1) Retirement benefits
      - 2) Survivor's benefits
      - 3) Disability benefits
    - d. Health insurance
- G. Taxes and Taxation
  - 1. Taxation as a sharing process
  - 2. Local (city and county) tax revenues
  - 3. State tax revenues
  - 4. Regressive and progressive taxes
  - 5. Income distribution and redistribution
  - 6. Federal and state tax forms and preparation

Suggested Outline of Course Content for Business Law

I. The American Legal System

- A. Classifications of Law
  - 1. Constitutional Law
  - 2. Statute Law
  - 3. Common Law
  - 4. Administrative Law
  - 5. Business Law
- B. Legal Issues Confronting Adults' and Minors' Due Process
  - 1. Rights after arrest
  - 2. Search and Seizure; Stop and Frisk
  - 3. The legal issues of minors and
    - a. Automobiles
    - b. Schools
    - c. Parents
    - d. Marriage
    - e. Emancipation
    - f. Business transactions

- C. Torts and Crimes—the difference between Criminal Law (crimes) and Civil Law (torts)
- D. The Court System
  - 1. The Federal Courts
  - 2. The State Courts
  - 3. Criminal Procedure
  - 4. Civil Procedure
  - 5. Trial Procedure

II. Formation of Contracts

- A. Mutual Assent
  - 1. Offer
  - 2. Acceptance
- B. Competency of Parties
  - 1. The minor
  - 2. Others incapable of contractual capacity
- C. Consideration
  - 1. Elements of Consideration
  - 2. Cautions to be observed
- D. Legality of Subject Matter
  - 1. Legal v. Illegal subject matter
  - 2. Agreements in restraint of trade
- E. Reality of Consent
  - 1. Fraud
  - 2. Duress
  - 3. Undue influence
  - 4. Mistake of fact
- F. Statute of Frauds
  - 1. Contracts requiring writing
  - 2. Elements necessary for written proof
- G. Assignment and Discharge of Contracts
  - 1. Rights and remedies of assignor and assignee
  - 2. Termination by performance
  - 3. Termination by agreement
  - 4. Termination by operation of law
- H. Breach of Contract Remedies
  - 1. Cancellation
  - 2. Dollar damages
  - 3. Specific performance

III. Bailments

- A. Types of Bailments
  - 1. Mutual benefit
  - 2. Sole benefit of bailor
  - 3. Sole benefit of bailee
- B. Rights and Duties of Parties
  - 1. Rights of bailee and bailor
  - 2. Duties of bailee and bailor
- C. Extraordinary Bailments
  - 1. Common carriers
  - 2. Innkeepers
  - 3. Extraordinary bailees as insurers of goods

IV. Law of Employment

- A. Employment Contracts
  - 1. Collective bargaining
  - 2. Rights and duties of employer
  - 3. Rights and duties of employee
  - 4. Rights and duties of independent contractor
- B. Employee Legislation
  - 1. Child labor laws
  - 2. Minimum wage laws
  - 3. Civil rights
  - 4. Unfair labor procedures
- C. Protection of Employee
  - 1. Common law duties and obligations of employer and employee
  - 2. Worker compensation benefits

V. Law of Property

- A. Personal Property
  - 1. Methods of acquiring personal property
  - 2. Types of ownerships
- B. Real Property
  - 1. Methods of acquiring real property
  - 2. Procedure in buying real property
- C. Landlord-Tenant
  - 1. Rights and obligations of landlord
  - 2. Rights and obligations of tenant
  - 3. Types of leases
- D. Wills and Estates
  - 1. Requirements of a will
  - 2. Types of wills
  - 3. Dying without a will (Intestacy)

VI. Law of Sales

- A. The Sales Contract
  - 1. Form
  - 2. Subject matter of a sale
- B. Title Transfer
  - 1. When does title transfer
  - 2. When does risk of loss transfer
- C. Warranties
  - 1. Express warranties
  - 2. Implied warranties

VII. Insurance

- A. Insurance Concept
  - 1. Theory of insurance
  - 2. History of insurance
- B. Casualty Insurance
  - 1. Homeowners insurance
  - 2. Other property insurance
  - 3. Special coverages
- C. Life Insurance
  - 1. Purpose of life insurance
  - 2. Types
  - 3. Special clauses
- D. Health and Accident Insurance
  - 1. Hospitalization
  - 2. Accident
  - 3. Disability
- E. Auto Insurance
  - 1. Liability
  - 2. Collision
  - 3. Comprehensive
  - 4. Uninsured Motorist
  - 5. No Fault Auto Insurance

- VIII. Business Organization
  - A. Types of Business Structure
    - 1. Sole proprietorship
    - 2. Partnership
    - 3. Corporation
  - B. Government Regulation of Business—Federal Agencies

Suggested Outline of Course Content for Economics

- I. The Importance of Economics
  - A. Problems of the 1980's
    - 1. Inflation
    - 2. Unemployment/Underemployment
    - 3. Income policy
    - 4. Resource limitations
    - 5. Constraints on economic growth
    - 6. Monetary stability
    - 7. Economic injustice
  - B. A Way of Thinking
    - 1. Use of cost versus benefit analysis
    - 2. Use of costs and substitutes (decision making)
    - 3. Use of economic models for prediction
    - 4. Use of economic measurements
    - 5. Use of marginality or incremental changes
    - 6. Use of equilibrium of opposing forces
- II. The Economic Problem: Economic Wants
  - A. Scarcity
  - B. Division of Labor
  - C. Production and Distribution
  - D. Allocation of Resources
  - E. Solutions to the Economic Problem
    - 1. Tradition
    - 2. Command
    - 3. Market System
- III. The Market Economy
  - A. Components of the Economy
    - 1. Consumer-worker-citizen
    - 2. Producers: agriculture, manufacturing, distribution, retailing
    - 3. Governments
    - 4. Foreign Markets
  - B. Circular Flow of Economic Activity
    - 1. Productive Resources - Land, Labor, Capital, and Management
    - 2. Income - rent, wages, interest, profit
    - 3. Spending
    - 4. Goods and services
  - C. Consumer as Decision Maker
    - 1. Determines resource allocation
    - 2. Rational economic being
    - 3. Economic voting
    - 4. Consumer sovereignty/power
    - 5. Impact of consumer demand on economy
    - 6. Impact of consumer demand on
      - a. Producers
      - b. Quality
      - c. Efficiency
      - d. Safety
      - e. Price
- IV. Economic Principles in the Marketplace
  - A. Scarcity and Choices
    - 1. Need for choices
    - 2. Need to economize
    - 3. Need to maximize utility and satisfaction
  - B. Opportunity Costs and Trade-offs
    - 1. Personal decision making
    - 2. Social decision: cost/benefit
  - C. Price Determination
    - 1. Demand - supply (cost)
    - 2. Interaction of supply and demand
    - 3. Marginalism and equilibrium
  - D. Competition - As Control on Price
    - 1. Pure competition
    - 2. Oligopoly
    - 3. Monopoly
    - 4. Change in competition
      - a. Customer service
      - b. Product design
      - c. Advertising
      - d. Marketing
      - e. Price
  - E. Resource Allocation: Interaction of:
    - 1. Scarcity and choices
    - 2. Opportunity costs and trade-offs
    - 3. Price determination
    - 4. Competition
- V. Economic Measurements
  - A. Gross National Product
  - B. Unemployment
  - C. Consumer Price Index
  - D. Recession
  - E. Personal Income
  - F. Per Capita
  - G. Real Income
  - H. Productivity
  - I. Public Debt
  - J. Index of Consumer Confidence
  - K. Wholesale Price Index
  - L. Business Cycles
  - M. Balance of Payments
- VI. Economic Stability and Growth
  - A. Aggregate Supply and Production Capacity
  - B. Aggregate Demand: Unemployment and Inflation
  - C. Money and Monetary Policy
  - D. Fiscal Policy: Taxes, Expenditures and Transfers
  - E. Income Distribution and Redistribution
  - F. Government Intervention and Regulation
  - G. Savings, Investment and Capital Formation
  - H. Economic Growth
    - 1. Scarcity and abundance
    - 2. Limits of growth
    - 3. Conservation

VII. The World Economy
  A. International Economic Interdependence
    1. Food policy
    2. Energy
    3. Natural resources
    4. Trade problems
    5. Trade cartels
  B. Other Economic Systems
    1. European socialism
    2. Soviet socialism
    3. The common market
    4. Underdeveloped world

Suggested Course Outline for Business Organization and Management

I. Perspectives on American Business Enterprise
  A. The Economic Environment of Business
    1. Business and American values
    2. Business and personal success
    3. Business and social reform
    4. Business and economics
    5. Economic resources
      a. Material
      b. Human
    6. The American economic system
      a. Philosophy of pure capitalism
      b. Realities of modified capitalism
    7. Other economic systems
      a. Socialism
      b. Communism
  B. The History and Philosophy of American Business
    1. Historical development of American business and its relation to political development
    2. The nature of the present business economy
      a. Positive aspects
      b. Negative aspects
    3. The role of profits
      a. Use of profit
      b. Maximizing profit
  C. The Social Responsibility of Business
    1. Business' social responsibility
    2. Business and the environment
      a. Pollution
      b. Government's role in environmental protection
      c. Business' role in environmental protection
    3. Business and the energy crisis
    4. Business and the consumer
    5. Business and minorities
  D. Forms of Business Organization
    1. Sole proprietorships
      a. Advantages
      b. Disadvantages
      c. Characteristics
    2. Partnerships
      a. Formation
      b. Advantages
      c. Disadvantages
      d. Characteristics
    3. Corporations
      a. History of American corporate development
      b. How to incorporate
      c. Organization of corporations
      d. Types of corporations
      e. Advantages
      f. Disadvantages
    4. Other forms of business organizations
      a. Cooperatives
      b. Franchises

II. Management of the Business Firm
  A. The Management Process
    1. Organization and management
      a. Define "organization"
      b. Define "management"
    2. The Functions of Management
      a. Planning
      b. Organizing
      c. Directing (actuating)
      d. Controlling
      e. Need for sound organizational objectives
    3. Planning
      a. Long-range plans
      b. Short-range plans
      c. Steps in the planning process
      d. Qualities of sound plans
      e. Responsibility for planning
    4. Organizing
      a. Division of labor
      b. Principles of staffing
      c. Responsibility of organizing
    5. Directing
      a. Motivation
      b. Leading
      c. Responsibility for directing
    6. Controlling
      a. The cyclical nature of controlling
      b. Responsibility for controlling
    7. Managerial skills
      a. Technical skills
      b. Human relations skills
      c. Conceptual skills
  B. Internal Organization
    1. Formal organization and organization charts
    2. Informal organization and the "grapevine"
    3. Departmentation
      a. By function
      b. By territory
      c. By product
      d. Other bases for departmentation

4. Approaches to organization
    - a. Line
    - b. Line-and-staff
    - c. Functional
5. Centralization and decentralization
    - a. Advantages
    - b. Disadvantages

C. Human Relations in Business
- 1. Motivation
    - a. Define "motivation"
    - b. Classical theory of motivation
        - 1) Taylor
        - 2) Mayo
    - c. Contemporary theory of motivation
        - 1) Maslow's hierarchy of needs
        - 2) McGregor's Theory X and Y
    - d. Newer approaches
        - 1) Systems concepts
        - 2) Contingency concepts
- 2. Morale
    - a. Morale and productivity
    - b. Worker dissatisfaction
        - 1) Signs of discontent
        - 2) Managerial responses
- 3. Overcoming worker discontent
    - a. Job enlargement, enrichment, and rotation
    - b. Management by objectives (MBO)

D. Personnel Management
- 1. Its importance and role in modern business
- 2. Functions
    - a. Personnel needs planning
    - b. Recruitment of employees
    - c. Employee selection
    - d. Hiring
    - e. Worker training and management development
    - f. Wage and salary administration
    - g. Health and safety programs
    - h. Staff evaluation
        - 1) Merit
        - 2) Seniority

E. Management and Union Relations
- 1. The development of the union movement
- 2. The structure of American unions
- 3. Reasons why employees join unions
    - a. Purpose of unions
    - b. Strength of unions
    - c. "Collective" vs. "individual" bargaining
- 4. Management—labor confrontations
    - a. Weapons of management
    - b. Weapons of unions
- 5. Management—labor cooperation
    - a. Negotiated items
    - b. The bargaining process
    - c. Conciliation, mediation, and arbitration
    - d. Grievance procedures
- 6. Current issues
    - a. Union power and control
    - b. Public employee and "white collar" unions
    - c. Unions and minorities

F. Production Management
- 1. The role of technology in contemporary American business
    - a. Mechanization
    - b. Standardization
    - c. Automation
    - d. Assembly line production
- 2. The functions of production management
    - a. Production planning
        - 1) Location
        - 2) Methods of production
    - b. Purchasing
        - 1) Acquisition
        - 2) Pricing
        - 3) Timing
        - 4) Steps in the purchasing process
    - c. Inventory and its control
    - d. Production and its control
        - 1) Planning
        - 2) Routing
        - 3) Scheduling
        - 4) Dispatching
        - 5) Follow-up and quality control

G. Careers in Management
- 1. Common career paths to success
- 2. Educational paths
- 3. Experiential paths

III. Financing the Business Firm

A. Long-term Financing
- 1. Obtaining funds for business long-term financing
- 2. Bonds
- 3. Stocks
    - a. Preferred
    - b. Common
- 4. Bonds and stocks compared in making financing decisions
- 5. Long-term financial institutions
    - a. Life insurance companies
    - b. Trust institutions
    - c. Pension funds
    - d. Investment banks
    - e. Savings and loan associations
    - f. The role the above play in American long-term financing

B. Short-term Financing
- 1. Obtaining funds for business by short-term borrowing
- 2. Trade credit
    - a. Open-book accounts
    - b. Promissory notes
    - c. Drafts and acceptances

IV. Quantitative Tools for Managerial Decision Making in Business

A. Accounting, Budgeting, and Financial Statements
1. Accounting
a. The purposes and uses of accounting
b. Types of accountants
c. Accounting concepts
1) The accounting equation
2) Double-entry bookkeeping
d. The balance sheet
e. The income statement
2. The budget
a. Types of budgets
b. Flexible budgeting
3. Interpreting financial statements for managerial decision making

B. Business Research, Analysis, and Reporting
1. The use of statistics
a. Collecting data
b. Sources of data
c. Primary and secondary data
2. Presentation of data
a. Reports
b. Tables
c. Graphs

C. Data Processing and Computer Technology
1. The role of computers in business
a. Effect upon personal lives
b. Effect upon business lives
c. Computers and humans
2. Development of computer technology
a. The four generations of computers
b. Growth of the industry
c. Use of computers in the future
3. Conceptual operation of the computer hardware
a. Input-output equipment
b. The central processing unit
c. Computer
4. Computer Software
a. Computer programs and people
b. Roles of computer personnel
1) Systems analysts
2) Programmers
3) Input specialists
c. Relation of the computer to management decision making
d. Processing data

D. Careers in Accounting and Data Processing
1. Common career paths to success
2. Educational paths
3. Experiential paths

V. Marketing and Distribution of Business Goods and Services

A. An Overview of Marketing Concepts
1. The importance of marketing
a. To governments
b. To businesses and workers
c. To consumers
2. Marketing functions
a. Buying
b. Selling
c. Storing
d. Transporting
e. Financing
f. Risk bearing
g. Securing
3. Marketing's four P's
a. Product
b. Price
c. Promotion
d. Placement
e. Interrelationship of the above
4. The markets
a. Business markets
b. Consumer markets
5. Criticisms of American business marketing practice

B. Consumerism
1. Population statistics for marketing decisions
2. Analyzing consumers' buying motives
a. Psychology of buying
b. Sociology of buying

C. Product and Pricing Decisions
1. Determining product mix
2. New products
a. Product life cycle
b. Introducing new products
3. Branding
4. Packaging
5. Labeling
6. Pricing
7. Pricing considerations
a. Markup
b. Discounting
c. Geographic factors
d. Other factors

D. Promotion of Goods and Services
1. Advertising
a. Approaches to advertising
b. Advertising media
c. Advertising agencies
2. Personal selling
3. Sales promotion
4. Public acceptance of advertising
a. Costs of advertising
b. Information gained through advertising
c. Truthfulness of advertising
d. Wastefulness of advertising
5. Regulation of advertising practices

E. Distribution of Goods and Services
1. Channels of distribution
a. Industrial products
b. Consumer goods
2. Wholesalers
a. Their functions
b. Kinds of wholesalers

    3. Retailers
        a. Chain stores and independent operators
        b. Kinds of retail outlets
    4. Physical distribution of goods
        a. Modes of transportation
        b. Transportation decisions
        c. Government regulation
F. Careers in Marketing
    1. Common career paths to success
    2. Educational paths
    3. Experiential paths

VI. The Environment of Business

A. Business Law and Ethics
    1. Business law defined
        a. Types of laws
        b. The American legal system
        c. Business law related to law in general
    2. Contracts
    3. Agency
    4. Property
        a. Real
        b. Personal
    5. Bankruptcy
    6. Business ethics
        a. Scope of business ethics
        b. Law and ethics
        c. The public's view
        d. Business' view
    7. Business codes-aids to ethical practices

B. Business and Government
    1. Interaction between business and government
        a. Interdependence
        b. Government assistance to business
            1) Aid to small business owners
            2) Role of the Small Business Administration
            3) Copyrights, trademarks, and patents
    2. Government regulation of business
    3. Government taxation of business
        a. Regulatory and restrictive taxes
        b. Revenue-collecting taxes

C. International Business
    1. Its growing importance
    2. The scope of international trade
        a. Forms of international trade
        b. Why nations trade
        c. Aids to international trade
        d. Barriers to international trade
    3. International finance
        a. Balance of trade
        b. Balance of payments
        c. Recent problems of the United States
    4. Multinational corporations
        a. Their nature
        b. Reasons for recent growth
        c. Problems in foreign business operations

D. Careers in Business Law, Government Services, and International Trade
    1. Common career paths to success
    2. Educational paths
    3. Experiential paths

APPENDIX F

RECOMMENDED COURSE SEQUENCES

(Illinois State Board of Education,
Department of Adult, Vocational
and Technical Education)

BOOKKEEPING/ACCOUNTING PROGRAM

This program includes a combination of courses and practical experiences concerned with systematizing information about transactions and activities into accounts and quantitative records and paying and receiving money. It is usually concerned with computing, classifying, and recording numerical data to keep financial records; receiving and disbursing money in business establishments; and using business machines. Operations and procedures utilizing office machines (other than business data processing equipment) for billing, posting, calculating, adding, listing, and merchandising data are included in this program. Students should be encouraged by counselors and others to choose electives from related business education courses such as: business law, business principles and organization, business math, business English and communications, consumer economics, Programming I, principles of marketing, and introduction to business (general business or basic business).

If accounting occupations is not available, it is recommended that Accounting I be offered at the eleventh grade and Accounting II be offered at the twelfth grade.

Suggested Occupational Course Sequence

12th Grade - Skill Development (full year or mimimum of two semester courses)

Accounting Occupations

11th Grade - Skill Development (full year or minimum of two semester courses)

Accounting II
Office Machines

10th Grade - Orientation (full year or minimum of two semester courses)

Accounting I
Introduction to Data Processing
Typing I

9th Grade - Exploration/Orientation

Orientation to Business, Marketing and Management Occupations

Accounting Occupations

Accounting occupations is a capstone course designed to assist students to develop into effective business employees by providing them with practical, advanced instruction in school and on-the-job experiences or in-school simulation of the various accounting functions.

If the cooperative approach is used, classwork at school may be largely accounting with additional work being given to students in individual areas where their performance on the job shows a need for it. The classroom instruction would vary with the individual student's present abilities and needs on the job. Related instruction is also oriented to the development of character traits and basic work relations. For more information concerning the cooperative education method of instruction, refer to publications on cooperative education from the Illinois State Board of Education, Department of Adult, Vocational and Technical Education.

Classwork at school is correlated with actual job experiences in a business office. Usually, half of the school day is spent taking classes and the other half in on-the-job training. The body of subject matter is usually organized into units of instruction to provide opportunities for pupils to prepare for and achieve career objectives in selected occupations.

Accounting II

Accounting II is a continuation of Accounting I which gives the students deeper knowledge of the principles of accounting with more emphasis being placed on financial statements and accounting records. It is a study of previously learned principles as they apply to the more complicated types of business organizations: partnerships, corporations, branches, etc. The students may become familiar with such specialized fields of accounting as cost accounting, tax accounting, payroll accounting, and others. Simulated business conditions may be provided through the use of practice sets. A better understanding of the relationship of automated data processing and the manual processing of business data is also developed. This course should be thought of as a continuation of the first year of accounting as it provides a technical background for college-bound students who plan a business curriculum as well as those who wish vocational preparation.

Office Machines

Office machines is designed to give students a fundamental knowledge of solving business problems using business machines. Business machines usually taught include ten-key and full-key adding machines; electronic and printing calculators; spirit, stencil, and heat- or light-process duplicators; and dictation/transcription equipment. Students may also receive training relative to data processing, including instruction on the keypunch or keypunch simulator, giving the students knowledge of keyboard techniques. This course could also include skill development on magnetic media typewriters through which students would be exposed to careers in a word processing correspondence center.

To determine the office machines to be taught in this course, a community survey should be conducted. The results will indicate the machines used in the community. These, then, are the machines to include in the office machines course.

Accounting I

Accounting I usually contains information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to advise what should be done. Practice sets with business papers may be used to emphasize actual business record management. Electronic data processing may also be integrated throughout the course where applicable. Basic fundamentals and terminology of accounting are stressed.

This course usually includes planned learning experiences concerned with the initial and basic methods used in the informational system of computing, classifying, recording, and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Career objectives are identified with a variety of occupational groups and specialization.

Introduction to Data Processing

This course is usually designed to give students the opportunity to decide if a career in the field of data processing interests them. Usually included in such a course is discussion of the methods and machines involved in manual, mechanical, and computer data processing. Students learn the terminology of data processing and the capabilities of the various machines to be used. Accounting systems—billing, payroll, and inventory control—may be studied to show how each would be processed in the three types of data processing methods. Usually hands-on experience is provided.

Data processing, as a business education course, should include: a basic understanding of the theory of data processing, a knowledge of the various methods of processing data, and a knowledge of the machines currently being used in today's business world. It is designed to give the student a general view of the field of data processing. The course may provide a foundation for more specific study of data processing or provide familiarity with terminology and principles for students in other business or college preparatory sequences. Students should learn the theory of punched card data processing as well as the features, functions, and operations of the various machines in a typical installation.

Typing I

Typing I usually develops basic skills in typing with emphasis on correct typing techniques, speed and accuracy, letters, tabulation problems, outlines, rough drafts, and manuscripts. Production of mailable copies is also stressed.

Orientation to Business, Marketing and Management Occupations

This course is a comprehensive orientation course including a combination of classroom, laboratory, and community-based experiences planned to introduce the student to the knowledges and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of the self-concept and matching personal abilities, in making a tentative career choice.

In-depth information into the business, marketing and management occupational careers; job and educational opportunities; and the educational and attitudinal requirements should be provided.

Instructional units include: orientation to the world of work; the role of men and women in today's society; relationships as related to personal fulfillment; and the employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits. Basic information and hands-on experiences applicable to a number of areas included in the orientation course are: clerical, secretarial, accounting, data processing, and marketing and distribution occupations.

In the business, marketing and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management. Students are also exposed to the wide range of occupations involving the facilitating function of an office.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

The content will vary from community to community since specific content is closely related to the resources of the community. Orientation of students should be to those occupations found within the employing community.

CLERICAL PROGRAM

This program includes planned learning experiences with a combination of courses and practical experiences concerned with recording and retrieving data; reproducing handwritten or typewritten matter using duplicating machines; performing a variety of clerical duties utilizing knowledge of systems and reports; distributing information using the mail, telephone, telegraph, or in person; and performing general clerical work requiring the use of a typewriter in a majority of the duties. Clerical workers are employed in all types of businesses. Students should be encouraged by counselors and others to choose electives from related business education courses such as: business English and communications, business law, business mathematics, consumer economics, and introduction to business (general business or basic business).

Suggested Occupational Course Sequence

12th Grade - Skill Development (full year or minimum of two semester courses)

Clerical Occupations
Clerical Office Procedures

11th Grade - Skill Development (full year or minimum of two semester courses)

Accounting I
Introduction to Data Processing
Office Machines
Typing II

10th Grade - Orientation (full year or minimum of two semester courses)

Record Keeping
Typing I

9th Grade - Exploration/Orientation

Orientation to Business, Marketing and Management Occupations

Course Description

Clerical Occupations

Clerical occupations is a capstone course designed to assist students develop into effective business employees by providing them with practical, advanced instruction in school and on the job through the cooperative education approach or in school through office simulation on various office jobs.

If the cooperative method is used, the related class at school is correlated with actual job experience in a business office. Usually half the school day is spent taking classes and the other half in on-the-job training. Classwork at school is largely clerical with additional work being given to students in individual areas where job performance shows a need for it. Time in class is usually devoted to group and/or individual study in the use of the telephone, switchboard operation, personal grooming, office relationships, accounting, office machines, filing and records management, office techniques, production typing, transcribing from dictation/transcription equipment, applying for a job, and occupational survival skills. Related instruction is also oriented to the development of character traits and basic work relations. For more information concerning the cooperative method of instruction, refer to publications on cooperative education from the Illinois State Board of Education/Department of Adult, Vocational and Technical Education.

Using the office simulation approach, classroom instruction includes work experience in a model office. Assignment areas in the model office may include: reception, clerical, duplicating, transcribing, typing, word processing, business machines, resource center, filing, payroll, marketing and management, stenography, record keeping, and taxes. When a student becomes proficient in the skills of one department, he or she may supervise other students or may be transferred to another department.

Clerical Office Procedures

Clerical office procedures is a capstone course designed to prepare office procedures students for employment as general clerical office workers. In order to master office skills, training is usually given in typewriting, answering the telephone, receiving callers, duplicating, filing, record keeping, mailing services, and operating various business machines. This course may also emphasize office etiquette, proper business behavior, and occupational information. A review of grammar, punctuation, and business mathematics is also included in the instruction. Emphasis is placed on developing desirable personality traits and work habits necessary in actual office situations.

Skills and understandings previously learned may be reviewed, while office procedures and techniques that have not been included in other courses are introduced. These old and new understandings and skills are integrated by completing a series of realistic office assignments or through office simulation.

Shorthand is usually not taught. If it is, then the course is generally called secretarial office procedures. Shorthand may or may not be taught in office procedures.

Accounting I

Accounting I usually contains information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to advise what should be done. Practice sets with business papers may be used to emphasize actual business record management. Electronic data processing may also be integrated throughout the course where applicable. Basic fundamentals and terminology of accounting are stressed.

This course usually includes planned learning experiences concerned with the initial and basic methods used in the informational system of computing, classifying, recording, and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Career objectives are identified with a variety of occupational groups and specialization.

Introduction to Data Processing

This course is usually designed to give students the opportunity to decide if a career in the field of data processing interest them. Usually included in such a course is discussion of the methods and machines involved in manual, mechanical, and computer data processing. Students learn the terminology of data processing and the capabilities of the various machines to be used. Accounting systems—billing, payroll, and inventory control—may be studied to show how each would be processed in the three types of data processing methods. Usually hands-on experience is provided.

Data processing, as a business education course, should include: a basic understanding of the theory of data processing, a knowledge of the various methods of processing data, and a knowledge of the machines currently being used in today's business world. It is designed to give the student a general view of the field of data processing. The course may provide a foundation for more specific study of data processing or provide familiarity with terminology and principles for students in other business or college preparatory sequences. Students should learn the theory of punched card data processing, as well as the features, functions, and operations of the various machines in a typical installation.

Office Machines

Office Machines is designed to give students a fundamental knowledge of solving business problems using business machines. Business machines usually taught include ten-key and full-key adding machines; electronic and printing calculators; spirit, stencil and heat- or light-process duplicators; and dictation/transcription equipment. Students may also receive training relative to data processing, including instruction on the keypunch or keypunch simulator, giving the students knowledge of keyboard techniques. This course could also include skill development on magnetic media typewriters through which students would be exposed to careers in a word processing correspondence center.

To determine the office machines to be taught in this course, a community survey should be conducted. The results will indicate the machines used in the community. These, then are the machines to include in the office machines course.

Typing II

A high degree of skill is usually developed in Typing II. Production work, especially the typing of letters, manuscripts, statistical tables, and business forms, is the major emphasis of the course.

Typewriting office standards are coupled with typical office related projects. Typewritten materials in this course are perfected to mailable standards set by the business community employing the students.

Record Keeping

This course is usually offered to give the students an understanding of the principles and procedures for planning, managing, and recording the business transactions to which most individuals are exposed in their personal and occupational lives. This course usually provides minimal training for certain clerical jobs involving routing activities.

This is a course in the fundamental principles of financial record keeping common to a great many general office and sales positions. It is designed for students whose career objectives do not require an in-depth understanding of business records, but rather some knowledge of record keeping as a secondary or related skill. It is designed to meet the needs of those students who have condsiderable difficulty in following a regular accounting course of study.

Typing I

Typing I usually develops basic skills in typing with emphasis on correct typing techniques, speed and accuracy, letters, tabulation problems, outlines, rough drafts, and manuscripts. Production of mailable copies is stressed also.

Orientation to Business, Marketing and Management Occupations

This course is a comprehensive orientation course including a combination of classroom, laboratory, and community-based experiences planned to introduce the student to the knowledges and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of the self-concept and matching personal abilities, to make a tentative career choice.

In-depth information into the business, marketing and management occupational careers; job and educational opportunities; and the educational and attitudinal requirements should be provided.

Instructional units include: orientation to the world of work; the role of men and women in today's society; relationships as related to personal fulfillment; and the employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits. Basic information and hands-on experiences applicable to a number of areas included in the orientation course are: clerical, secretarial, accounting, data processing, and marketing and distribution occupations.

In the business, marketing and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management. Students are also exposed to the wide range of occupations involving the facilitating function of an office.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

The content will vary from community to community since specific content is closely related to the resources of the community. Orientation of students should be to those occupations found within the employing community.

COMPUTER AND CONSOLE OPERATIONS PROGRAM

The computer and console operations program consists of learning activities which include a combination of courses and practical experiences concerned with business data processing systems and operations. This program is concerned with the operation of an electronic data processing computer including reviewing program instructions, determining procedures for a specific run, readying equipment for operation, and manipulating and monitoring controls during operation.

Training received in this program could be used as a basis for further training at a community college. Articulation between the secondary and postsecondary programs is recommended.

Students should be encouraged by counselors and others to choose electives from related business education courses such as: business principles and organization, introduction to business (general business or basic business), business English and communications, consumer economics, and business law.

If data processing occupations is not available, it is recommended that Programming I be offered at the twelfth grade rather than at the eleventh grade.

Suggested Occupational Course Sequence

12th Grade - Skill Development (full year or minimum of two semester courses)

11th Grade - Skill Development (full year or minimum of two semester courses)

Data Processing Math II
Programming I

10th Grade - Orientation (full year or minimum of two semester courses)

Accounting I
Data Processing Math I
Introduction to Data Processing
Typing I

9th Grade - Exploration/Orientation

Orientation to Business, Marketing and Management Occupations

Data Processing Occupations

Data processing occupations is a capstone course designed to assist students to develop into effective business employees by providing them with practical, advanced instruction in school and on the job or in school through office simulation on various data processing functions.

If the cooperative approach is used, instruction may be largely data processing with additional work being given to students in individual areas where their performance on the job shows a need for it. The classroom instruction would vary with the individual student's abilities and needs on the job. Related instruction is also oriented to the development of character traits and basic work relations. For more information concerning the cooperative education method of instruction, refer to publications on cooperative education from the Illinois State Board of Education, Department of Adult, Vocational and Technical Education.

Data Processing Math II

This course is a continuation of Data Processing Math I. It includes a more advanced study in the areas of number bases, truth tables, mathematical logic, and algebraic operations in relation to data processing applications.

Programming I

In Programming I the student is introduced to subject matter and learning activities which involve the use of modern data processing procedures and equipment in business activities with special emphasis usually being placed on the central computer and its peripheral devices. In practice, special applications are usually made to inventory control, payroll procedures, customer accounts, billing procedures, and storage and retrieval of information.

Course objectives are to prepare students for Programming II. This course is usually problem oriented to develop basic skills and knowledges in the use of the various data processing machines in business applications. Flow charting, systems design, and other basic types of work are examples of units taught. Language concepts are introduced and students actually write computer programs. Students usually develop technical knowledge and skills in the basic operations of computer equipment.

Hands-on experience in operating computers is vital to this program. Introduction to the various operating systems is also a major component of this program. Practical setup of a job and running it from beginning to end should be stressed along with job-control language, reading console messages, and responding to them.

Suggested languages to be taught are RPG and COBOL with instruction on time-sharing methods being used in the local community.

Accounting I

Accounting I usually contains information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to advise what should be done. Practice sets with business papers may be used to emphasize actual business record management. Electronic data processing may also be integrated throughout the course where applicable. Basic fundamentals and terminology of accounting are stressed.

This course usually includes planned learning experiences concerned with the initial and basic methods used in the informational system of computing, classifying, recording, and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Career objectives are identified with a variety of occupational groups and specialization.

Data Processing Math I

This course includes a study of number bases, truth tables, mathematical logic, and algebraic operations in relation to data processing applications.

Introduction to Data Processing

This course is usually designed to give students the opportunity to decide if a career in the field of data processing interests them. Usually included in such a course is discussion of the methods and machines involved in manual, mechanical, and computer data processing. Students learn the terminology of data processing and the capabilities of the various machines to be used. Accounting systems—billing, payroll, and inventory control—may be studied to show how each would be processed in the three types of data processing methods. Usually hands-on experience is provided.

Data processing, as a business education course, should include: a basic understanding of the theory of data processing, a knowledge of the various methods of processing data, and a knowledge of the machines currently being used in today's business world. It is designed to give the student a general view of the field of data processing. The course may provide a foundation for more specific study of data processing or provide familiarity with terminology and principles for students in other business or college preparatory sequences. Students should learn the theory of punched card data processing, as well as the features, functions, and operations of the various machines in a typical installation.

Typing I

Typing I usually develops basic skills in typing with emphasis on correct typing techniques, speed and accuracy, letters, tabulation problems, outlines, rough drafts, and manuscripts. Production of mailable copies is stressed also.

Orientation to Business, Marketing and Management Occupations

This course is a comprehensive orientation course including a combination of classroom, laboratory, and community-based experiences planned to introduce the student to the knowledges and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of the self-concept and matching personal abilities, in making a tentative career choice.

In-depth information into the business, marketing and management occupational careers; job and educational opportunities; and the educational and attitudinal requirements should be provided.

Instructional units include: orientation to the world of work: the role of men and women in today's society; relationships as related to personal fulfillment; and the employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits. Basic information and hands-on experiences applicable to a number of areas included in the orientation course are: clerical, secretarial, accounting, data processing, and marketing and distribution occupations.

In the business, marketing and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management. Students are also exposed to the wide range of occupations involving the facilitating function of an office.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

The content will vary from community to community since specific content is closely related to the resources of the community. Orientation of students should be to those occupations found within the employing community.

COMPUTER PROGRAMMING PROGRAM

The computer programming program includes converting symbolic statements of business problems to detailed, logical flow charts for coding into computer language. Using a representative business problem, all or part of a work flow chart should be analyzed by applying knowledge of computer capabilities and subject matter to develop the sequence of program steps in courses within this program.

Students should also have classroom and/or actual business experiences in the following areas: converting detailed, logical flow charts to language processable by computer; devising sample input data to provide testing of program adequacy; observing or operating a computer to test a coded program using actual or sample input data; correcting program errors by such methods as altering program steps and sequence; preparing written instructions (run book) to guide operating personnel during production runs; analyzing, revising, and rewriting program to increase operating efficiency or to adapt to new requirement; and compiling documentation of program development and subsequent revisions.

Students should be encouraged by counselors and others to choose electives from related business education courses such as: business principles and organization, business English and communications, consumer economics, business law, and introduction to business (general business or basic business).

Suggested Occupational Course Sequence

12th Grade - Skill Development (full year or minimum of two semester courses)

Data Processing Occupations
Programming II

11th Grade - Skill Development (full year or minimum of two semester courses)

Accounting II
Data Processing Math II
Programming I

10th Grade - Orientation (full year or minimum of two semester courses)

Accounting I
Data Processing Math I
Introduction to Data Processing
Typing I

9th Grade - Exploration/Orientation
Orientation to Business, Marketing and Management Occupations

Data Processing Occupations

Data processing occupations is a capstone course designed to assist students to develop into effective business employees by providing them with practical, advanced instruction in school and on the job or in school through office simulation on various data processing functions.

If the cooperative approach is used, instruction may be largely data processing with additional work being given to students in individual areas where their performance on the job shows a need for it. The classroom instruction would vary with the individual student's abilities and needs on the job. Related instruction is also oriented to the development of character traits and basic work relations. For more information concerning the cooperative education method of instruction, refer to publications on cooperative education from the Illinois State Board of Education, Department of Adult, Vocational and Technical Education.

Programming II

Course objectives should be to prepare students for advanced work and to develop logical thought processes. Language concepts are broadened, and students write computer programs and run them. Advanced flow charting, systems design, and other types of advanced work are examples of units taught. This course is usually very problem oriented to develop more skill and knowledge in the use of the various data processing machines in more detailed business applications.

Suggested languages to be taught are RPG and COBOL with instruction on time-sharing methods being used in the local community. Also recommended is course instruction in introduction to data base management concepts.

Accounting II

Accounting II is a continuation of Accounting I which gives the students deeper knowledge of the principles of accounting with more emphasis being placed on financial statements and accounting records. It is a study of previously learned principles as they apply to the more complicated types of business organizations: partnerships, corporations, branches, etc. The students may become familiar with such specialized fields of accounting as cost accounting, tax accounting, payroll accounting, and others. Simulated business conditions may be provided through the use of practice sets. A better understanding of the relationship of automated data processing and the manual processing of business data is also developed. This course should be thought of as a continuation of the first year of accounting as it provides a technical background for college-bound students who plan a business curriculum as well as those who wish vocational preparation.

Data Processing Math II

This course is a continuation of Data Processing Math I. It includes a more advanced study in the areas of number bases, truth tables, mathematical logic, and algebraic operations in relation to data processing applications.

Programming I

In Programming I the student is introduced to subject matter and learning activities which involve the use of modern data processing procedures and equipment in business activities with special emphasis usually being placed on the central computer and its peripheral devices. In practice, special applications are usually made to inventory control, payroll procedures, customer accounts, billing procedures, and storage and retrieval of information.

Course objectives are to prepare students for Programming II. This course is usually problem oriented to develop basic skills and knowledges in the use of the various data processing machines in business applications. Flow charting, systems design, and other basic types of work are examples of units taught. Language concepts are introduced and students actually write computer programs. Students usually develop technical knowledge and skills in the basic operations of computer equipment.

Hands-on experience in operating computers is vital to this program. Introduction to the various operating systems is also a major component of this program. Practical setup of a job and running it from beginning to end should be stressed along with job-control language, reading console messages, and responding to them.

Suggested languages to be taught are RPG and COBOL with instruction on time-sharing methods being used in the local community.

Accounting I

Accounting I usually contains information on keeping financial records, sumarizing them for convenient interpretation, and analyzing them to advise what should be done. Practice sets with business papers may be used to emphasize actual business record management. Electronic data processing may also be integrated throughout the course where applicable. Basic fundamentals and terminology of accounting are stressed.

This course usually includes planned learning experiences concerned with the initial and basic methods used in the informational system of computing, classifying, recording, and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Career objectives are identified with a variety of occupational groups and specialization.

Data Processing Math I

This course includes a study of number bases, truth tables, mathematical logic, and algebraic operations in relation to data processing applications.

Introduction to Data Processing

This course is usually designed to give students the opportunity to decide if a career in the field of data processing interests them. Usually included in such a course is discussion of the methods and machines involved in manual, mechanical, and computer data processing. Students learn the terminology of data processing and the capabilities of the various machines to be used. Accounting systems—billing, payroll, and inventory control—may be studied to show how each would be processed in the three types of data processing methods. Usually hands-on experience is provided.

Data processing, as a business education course, should include: a basic understanding of the theory of data processing, a knowledge of the various methods of processing data, and a knowledge of the machines currently being used in today's business world. It is designed to give the student a general view of the field of data processing. The course may provide a foundation for more specific study of data processing or provide familiarity with terminology and principles for students in other business or college preparatory sequences. Students should learn the theory of punched card data processing, as well as the features, functions, and operations of the various machines in a typical installation.

Typing I

Typing I usually develops basic skills in typing with emphasis on correct typing techniques, speed and accuracy, letters, tabulation problems, outlines, rough drafts, and manuscripts. Production of mailable copies is also stressed.

Orientation to Business, Marketing and Management Occupations

This course is a comprehensive orientation course including a combination of classroom, laboratory, and community-based experiences planned to introduce the student to the knowledge and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of the self-concept and matching personal abilities, in making a tentative career choice.

In-depth information into the business, marketing and management occupational careers; job and educational opportunities; and the educational and attitudinal requirements should be provided.

Instructional units include: orientation to the world of work, the role of men and women in today's society, relationships as related to personal fulfillment, and the employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits. Basic information and hands-on experiences applicable to a number of areas included in the orientation course are: clerical, secretarial, accounting, data processing, and marketing and distribution occupations.

In the business, marketing and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management. Students are also exposed to the wide range of occupations involving the facilitating function of an office.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

The content will vary from community to community since specific content is closely related to the resources of the community. Orientation of students should be to those occupations found within the employing community.

KEYPUNCH, CODING AND PERIPHERAL EQUIPMENT OPERATORS PROGRAM

This program is concerned with the operation of equipment which is auxiliary or peripheral to the operation of the computer. Included are the operation of alphabetic numeric keypunch machines, cathode ray tubes (CRT), remote job entry devices and other key to disk, diskette, and tape devices. In addition, the use of high speed printers, tape drives, disk drives and other peripheral devices should be a part of the program. Training for such an occupation should include more than an acquaintanceship with the machine and should include re-training that would enable the student to reach the employable standards of the community. Students should be encouraged by counselors and others to choose electives from related business education courses such as: business principles and organization, consumer economics, business English and communications, and introduction to business (general business or basic business).

If data processing occupations is not available, it is recommended that data input-output be offered at the twelfth grade and not at the eleventh grade.

Suggested Occupation Course Sequence

12th Grade - Skill Development (full year or minimum of two semester courses)

11th Grade - Skill Development (full year or minimum of two semester courses)
Data Input-Output
Typing II

10th Grade - Orientation (full year or minimum of two semester courses)
Accounting I
Data Processing Math I
Introduction to Data Processing
Typing I

9th Grade - Exploration/Orientation
Orientation to Business, Marketing and Management Occupations

Data Processing Occupations

Data processing occupations is a capstone course designed to assist students to develop into effective business employees by providing them with practical, advanced instruction in school and on-the-job or in-school practical experience through office simulation on various data processing functions.

If the cooperative approach is used, instruction may be largely data processing with additional work being given to students in individual areas where their performance on the job shows a need for it. The classroom instruction would vary with the individual student's abilities and needs on the job. Related instruction is also oriented to the development of character traits and basic work relations. For more information concerning the cooperative education method of instruction, refer to publications on cooperative education from the Illinois State Board of Education, Department of Adult, Vocational and Technical Education.

Data Input-Output

This course may be a one-semester or a two-semester course depending upon the content chosen for the course. Usually the course includes practice on drum cards; alternate programming; setting up and punching from source documents; verifying data input on key-tape, disk, and diskette; and improvement of speed and accuracy in utilizing the keyboard. Instruction should also be given on the cathode ray tube equipment.

The student becomes familiar with basic requirements of a data processing system through problem-solving skills projects, discussion of keying problems, and on-card layout and design.

There is much detailed work in punched card data processing. Topics will include use of card-oriented computer systems, card design and layout, punched card machine functions, forms designs, and procedure development.

Typing II

A high degree of skill is usually developed in Typing II. Production work, especially the typing of letters, manuscripts, statistical tables, and business forms, is the major emphasis of the course.

Typewriting office standards are coupled with typical office related projects. Typewritten materials in this course are perfected to mailable standards set by the business community employing the students.

Accounting I

Accounting I usually contains information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to advise what should be done. Practice sets with business papers may be used to emphasize actual business record management. Electronic data processing may also be integrated throughout the course where applicable. Basic fundamentals and terminology of accounting are stressed.

This course usually includes planned learning experiences concerned with the initial and basic methods used in the information system of computing, classifying, recording, and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Career objectives are identified with a variety of occupational groups and specialization.

Data Processing Math I

This course includes a study of number bases, truth tables, mathematical logic, and algebraic operations in relation to data processing applications.

Introduction to Data Processing

This course is usually designed to give students the opportunity to decide if a career in the field of data processing interests them. Usually included in such a course is discussion of the methods and machines involved in manual, mechanical, and computer data processing. Students learn the terminology of data processing and the capabilities of the various machines to be used. Accounting systems—billing, payroll, and inventory control—may be studied to show how each would be processed in the three types of data processing methods. Usually hands-on experience is provided.

Data processing, as a business education course, should include: a basic understanding of the theory of data processing, a knowledge of the various methods of processing data, and a knowledge of the machines currently being used in today's business world. It is designed to give the student a general view of the field of data processing. The course may provide a foundation for more specific study of data processing or provide familiarity with terminology and principles for students in other business or college preparatory sequences. Students should learn the theory of punched card data processing, as well as the features, functions, and operations of the various machines in a typical installation.

Typing I

Typing I usually develops basic skills in typing with emphasis on correct typing techniques, speed and accuracy, letters, tabulation problems, outlines, rough drafts, and manuscripts. Production of mailable copies is also stressed.

Orientation to Business, Marketing and Management Occupations

This course is a comprehensive orientation course including a combination of classroom, laboratory and community-based experiences planned to introduce the student to the knowledges and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of the self-concept and matching personal abilities, to make a tentative career choice.

In-depth information into the business, marketing and management occupational careers; job and educational opportunities; and the educational and attitudinal requirement should be provided.

Instructional units include: orientation to the world of work; the role of men and women in today's society; relationships as related to personal fulfillment; and the employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits. Basic information and hands-on experiences applicable to a number of areas included in the orientation course are: clerical, secretarial, accounting, data processing, and marketing and distribution occupations.

In the business, marketing and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management. Students are also exposed to the wide range of occupations involving the facilitating function of an office.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

The content will vary from community to community since specific content is closely related to the resources of the community. Orientation of students should be to those occupations found within the employing community.

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STENOGRAPHY/SECRETARIAL PROGRAM

Stenography/Secretarial Program

This program contains planned learning activities including a combination of courses and practical work experiences concerned with creating, classifying, and filing records; taking manual or machine shorthand dictation or transcribing from dictation/transcription equipment; and carrying out general office duties. Places of employment for secretaries or stenographers would be general offices, banks, legal offices, medical offices, dental offices, sales offices, or word processing systems as administrative support personnel. Students should be encouraged by counselors and others to choose electives from related business education courses such as business English and communications, business law, business mathematics, consumer economics, and introduction to business (general business or basic business).

Suggested Occupational Course Sequence

12th Grade - Skill Development (full year or minimum of two semester courses)
Secretarial Occupations
Legal Secretary) Specialized courses usually offered
Medical Secretary) in area vocational centers.
Secretarial Office Procedures
Shorthand II or Machine Shorthand II

11th Grade - Skill Development (full year or minimum of two semester courses)
Accounting I
Office Machines
Shorthand I, Machine Shorthand I, or Machine Transcription
Typing II

10th Grade - Orientation (full year or minimum of two semester courses)
Introduction to Data Processing
Typing I

9th Grade - Exploration/Orientation
Orientation to Business, Marketing and Management Occupations

Secretarial Occupations

Secretarial Occupations is a capstone course designed to assist students develop into effective business employees by providing them with practical, advanced instruction in school and on the job through the cooperative education approach or in school through office simulation on various office jobs.

If the cooperative method is used, the related class at school is correlated with actual job experience in a business office. Usually half the school day is spent taking classes and the other half in on-the-job training. Classwork at school is largely secretarial with additional work being given to students in individual areas where job performance shows a need for it. Time in class is usually devoted to group and/or individual study in the use of the telephone, switchboard operation, personal grooming, office relationships, accounting, office machines, filing and records management, office techniques, production typing, transcribing from dictation/transcription equipment, advanced shorthand and transcription, applying for a job, and occupational survival skills. Related instruction is also oriented to the development of character traits and basic work relations. For more information concerning the cooperative method of instruction, refer to publication on cooperative education from the Illinois State Board of Education, Department of Adult, Vocational and Technical Education.

Using the office simulation approach, classroom instruction includes work experience in a model office. Assignment areas in the model office machines include: reception, duplicating, secretarial, transcribing, stenography, typing, word processing, business machines, resource center, filing, payroll, marketing and management, stenography, record keeping, and taxes. When a student becomes proficient in the skills of one department, he or she may supervise other students or may be transferred to another department.

Legal Secretary

This course provides a combination of subject matter and skill-development activities with emphasis on the duties and procedures specifically related to the legal field. For students with shorthand, dictation and transcription skills are refined. The course also includes typing wills, codicils, briefs, transcripts, abstracts, and testimonies; transcription from dictation/transcription equipment; instruction on memory typewriters; learning legal terminology and legal filing procedures; learning record keeping.

Medical Secretary

As a capstone to the secretarial program, this course provides a combination of subject matter and skill-development activities with emphasis on secretarial duties and procedures specifically related to health care facilities. The course includes taking medical shorthand dictation for shorthand students. All students would learn to properly handle insurance forms; learn to transcribe from dictation/transcription equipment; and study medical terminology, medical filing, and record keeping.

Secretarial Office Procedures

This is a capstone course designed to prepare secretarial students for immediate employment upon graduation. Emphasis is usually placed on office etiquette, proper business behavior, occupational information, filing, typing and machine techniques, as well as a review of grammar, punctuation, and business mathematics. Skills and understandings previously learned may be reviewed, while office procedures that have not been included in other courses are introduced. These old and new understandings and skills may be integrated by completing a series of realistic office assignments.

Previous training is usually required in the area of shorthand or in the area of transcription from dictation equipment. Shorthand II may be included as part of the instruction. Training may also be given in office-style dictation, transcription, letter composition, handling mail, receiving callers, and telephone techniques. Emphasis is placed on developing desirable personality traits and work habits necessary in actual office situations. Classroom instruction may include work experience in a model office.

Shorthand II or Machine Shorthand II

Shorthand II. The Shorthand II course is an extension of Shorthand I. It is designed to serve secretarial students who want a strong shorthand skill. Intensive speed building in taking shorthand notes and typewritten transcription of mailable letters usually are the two most important units with a review of shorthand theory. Much emphasis is usually placed on transcription techniques and skills. The development of mailable letters, using office standards, is one of the primary goals. Office-style dictation may also be given using letters of increasingly difficulty and length.

Machine Shorthand II. This course is a continuation of Machine Shorthand I. Emphasis is placed on speed building and transcription of mailable letters. Office-style dictation may be given using letters of increasingly difficulty and length.

Accounting I

Accounting I usually contains information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to advise what should be done. Practice sets with business papers may be used to emphasize actual business record management. Electronic data processing may also be integrated throughout the course where applicable. Basic fundamentals and terminology of accounting are stressed.

This course usually includes planned learning experiences concerned with the initial and basic methods used in the informational system of computing, classifying, recording, and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Career objectives are identified with a variety of occupational groups and specialization.

Office Machines

Office Machines is designed to give students a fundamental knowledge of solving business problems using business machines. Business machines usually taught include ten-key and full-key adding machines; electronic and printing calculators; spirit, stencil, and heat- or light-process duplicators; and dictation/transcription equipment. Students may also receive training relative to data processing, including instruction on the keypunch or keypunch simulator, which give the students knowledge of keyboard techniques. This course could also include skill development on magnetic media typewriters through which students would be exposed to careers in a word processing correspondence center.

To determine the office machines to be taught in this course, a community survey should be conducted. The results will indicate the machines used in the community. These, then, are the machines to include in the office machines course.

Shorthand I, Machine Shorthand I or Machine Transcription

Shorthand I. Shorthand I covers the theory of shorthand, emphasizing reading and writing skills, dictation, and transcription. Intensive speed building in taking shorthand notes and typewritten transcription of mailable letters is usually stressed during the second semester of this one-year course. There is an integration of shorthand, typing, and language skills.

Machine Shorthand I. Machine Shorthand I covers the theory of machine shorthand. Emphasis is placed on reading skills, writing skills, and dictation and transcription skills. During the second semester, intensive speed building in taking machine shorthand notes and the typewritten transcription of mailable letters is usually stressed. There is an integration of machine shorthand, typing, and language skills.

Machine Transcription

This course provides a thorough review of typewriting production techniques and language arts skills including grammar, punctuation, spelling, pronunciation, and word division. Intensive training is given to the listening, editing, and proofreading skills. In the second semester of the course, emphasis is placed upon vocabulary development, selecting appropriate format, typewritten transcription speed, and usable transcripts. In addition to developing transcription skills, the students should learn to dictate into dictation/transcription equipment and transcribe from this dictation.

Typing II

A high degree of skill is usually developed in Typing II. Production work, especially the typing of letters, manuscripts, statistical tables, and business forms, is the major emphasis of the course.

Typewriting office standards are coupled with typical office related projects. Typewritten materials in this course are perfected to mailable standards set by the business community employing the students.

Introduction to Data Processing

This course is usually designed to give students the opportunity to decide if a career in the field of data processing interest them. Usually included in such a course is discussion of the methods and machines involved in manual, mechanical, and computer data processing. Students learn the terminology of data processing and the capabilities of the various machines to be used. Accounting systems—billing, payroll, and inventory control—may be studied to show how each would be processed in the three types of data processing methods. Usually hands-on experience is provided.

Data processing, as a business education course, should include the following: a basic understanding of the theory of data processing, a knowledge of the various methods of processing data, and a knowledge of the machines currently being used in today's business world. It is designed to give the student a general view of the field of data processing. The course may provide a foundation for more specific study of data processing or provide familiarity with terminology and principles for students in other business or college preparatory sequences. Students should learn the theory of punched card data processing, as well as the features, functions, and operations of the various machines in a typical installation. In addition, the use of computers in today's business world should be explored.

Typing I

Typing I usually develops basic skills in typing with emphasis on correct typing techniques, speed and accuracy, letters, tabulation problems, outlines, rough drafts, and manuscripts. Production of mailable copies is stressed also.

Orientation to Business, Marketing and Management Occupations

This course is a comprehensive orientation course including a combination of classroom, laboratory, and community-based experiences planned to introduce the student to the knowledges and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of the self-concept and matching personal abilities, to make a tentative career choice.

In-depth information into the business, marketing and management occupational careers; job and educational opportunities; and the educational and attitudinal requirements should be provided.

Instructional units include: orientation to the world of work; the role of men and women in today's society; relationships as related to personal fulfillment; and the employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits. Basic information and hands-on experiences applicable to a number of areas included in the orientation course are the following: clerical, secretarial, accounting, data processing, and marketing and distribution occupations.

In the business, marketing and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management. Students are also exposed to the wide range of occupations involving the facilitating function of an office.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

The content will vary from community to community since specific content input is closely related to the resources of the community. Orientation of students should be to those occupations found within the employing community.

CORRESPONDENCE CLERKING PROGRAM (WORD PROCESSING)

The coursework in this program utilizes sequentially structured learning experiences to develop skills and knowledges needed by correspondence personnel working in word processing systems. Training should include, but not be limited to, recording and retrieving typewritten information, using automated equipment, transcribing from dictation/transcription equipment, reproducing copies using automated equiment and/or photocopiers, and applying equipment operation skills through realistic activities. Word processing correspondence personnel are employed in legal offices, insurance agencies/headquarters, financial institutions, general offices, hospitals, government agencies, and a rapidly growing number of other types of offices. Students should be encouraged by counselors and others to choose electives from related business education courses such as: business English and communications, business law, business mathematics, consumer economics, and introduction to business (general business or basic business).

Suggested Occupational Course Sequence

12th Grade - Skill Development (full year or minimum of two semester courses)

Secretarial Occupations
Secretarial Office Procedures
Word Processing Equipment Operation

11th Grade - Skill Development (full year or minimum of two semester courses)

Office Machines
Machine Transcription
Typing II
Introduction to Word Processing

10th Grade - Orientation (full year or minimum of two semester courses)

Typing I

9th Grade - Exploration/Orientation

Orientation to Business, Marketing and Management Occupations

COURSE DESCRIPTION

Secretarial Occupations

Secretarial Occupations is a capstone course designed to assist students develop into effective business employees by providing them with practical, advanced instruction in school and on the job through the cooperative education approach or in school through office simulation on various office jobs.

If the cooperative method is used, the related class at school is correlated with actual job experience in a business office. Usually half the school day is spent taking classes and the other half in on-the-job training. Classwork at school is largely secretarial with additional work being given to students in individual areas where job performance shows a need for it. Time in class is usually devoted to group and/or individual study in the use of the telephone, switchboard operation, personal grooming, office relationships, accounting, office machines, filing and records management, office techniques, production typing, transcribing from dictation/transcription equipment, advanced shorthand and transcription, applying for a job, and occupational survival skills. Related instruction is also oriented to the development of character traits and basic work relations. For more information concerning the cooperative method of instruction, refer to publications on cooperative education from the Illinois State Board of Education, Department of Adult, Vocational and Technical Education.

Using the office simulation approach, classroom instruction includes work experience in a model office. Assignment areas in the model office may include: reception, duplicating, secretarial, transcribing, stenography, typing, word processing, business machines, resource center, filing, payroll, marketing and management, stenography, record keeping, and taxes. When a student becomes proficient in the skills of one department, he or she may supervise other students or may be transferred to another department.

Secretarial Office Procedures

This is a capstone course designed to prepare secretarial students for immediate employment upon graduation. Emphasis is usually placed on office etiquette, proper business behavior, occupational information, filing, typing, and machine techniques, as well as a review of grammar, punctuation, and business mathematics. Skills and understandings previously learned that have not been included in other courses are introduced. These old and new understandings and skills may be integrated by completing a series of realistic office assignments.

Previous training is usually required in the area of shorthand or in the area of transcription from dictation equipment. Shorthand II may be included as part of the instruction also. Training may also be given in office-style dictation, transcription, letter composition, handling mail, receiving callers, and telephone techniques. Emphasis is placed on developing desirable personality traits and work habits necessary in actual office situations. Classroom instruction may include work experience in a model office.

Word Processing Equipment Operation

In this course, skills will be developed on automated equipment utilized in correspondence centers in offices with word processing systems. Various types of equipment may be utilized such as the automatic repetitive typewriter, text editor, display text editor, and text editor with communication capabilities. Employment-level skills would be developed on available equipment.

After keyboarding skills have been developed, they are combined with previously developed machine transcription skills so students obtain realistic work experiences. Students learn to input rough draft material, make simple and extensive revisions, and play out text in final draft form. Grammar, punctuation, spelling, and proofreading are also emphasized throughout this course. A simulated correspondence center may be used to provide students with experience working in a correspondence center environment.

To determine equipment to be taught in this course, a community survey should be conducted. The results will identify equipment being used in the community. This, then, is the equipment to include in this course.

Office Machines

Office Machines is designed to give students a fundamental knowledge of solving business problems using business machines. Business machines usually taught include ten-key and full-key adding machines; electronic and printing calculators; spirit, stencil, and heat- or light-process duplicators; and dictation/transcription equipment. Students may also receive training relative to data processing, including instruction on the keypunch or keypunch simulator, giving the students knowledge of keyboard techniques. This course could also include skill development on magnetic media typewriters through which students would be exposed to careers in a word processing correspondence center.

To determine the office machines to be taught in this course, a community survey should be conducted. The results will indicate the machines used in the community. These, then, are the machines to include in the office machines course.

Machine Transcription

This course provides a thorough review of typewriting production techniques and language arts skills including grammar, punctuation, spelling, pronunciation, and word division. Intensive training is given to the listening, editing, and proofreading skills. In the second semester of the course, emphasis is placed upon vocabulary development, selecting appropriate format, typewritten transcription speed, and usuable transcripts. In addition to developing transcription skills, the students should learn to dictate into dictation/transcription equipment and transcribe from this dictation.

Typing II

A high degree of skill is usually developed in Typing II. Production work, especially the typing of letters, manuscripts, statistical tables, and business forms, is the major emphasis of the course.

Typewriting office standards are coupled with typical office related projects. Typewritten materials in this course are perfected to mailable standards set by the business community employing the students.

Introduction to Word Processing

This introductory word processing course emphasizes word processing concepts, careers available in offices with word processing systems, skill requirements of these positions, and the systems approach to office operations. If equipment is available, students may familiarize themselves with the operation and capabilities. However, students would not obtain employable skills on the equipment during this course.

Other topics that could be covered include how to implement a word processing system, future of word processing, budgeting in a word processing center, decision making, etc.

Typing I

Typing I usually develops basic skills in typing with emphasis on correct typing techniques, speed and accuracy, letters, tabulation problems, outlines, rough drafts, and manuscripts. Production of mailable copies is stressed also.

Orientation to Business, Marketing and Management Occupations

This course is a comprehensive orientation course including a combination of classroom, laboratory, and community-based experiences planned to introduce the student to the knowledges and skills related to the total field of business, marketing and management occupations.

The main purpose is to assist the student, through further development of the self-concept and matching personal abilities, in making a tentative career choice.

In-depth information into the business, marketing and management occupational careers; job and educational opportunities; and the educational and attitudinal requirements should be provided.

Instructional units include: orientation to the world of work; the role of men and women in today's society; relationships as related to personal fulfillment; and the employment success such as employer/employee relations, applying for work, personal grooming, and desirable work habits. Basic information and hands-on experiences applicable to a number of areas included in the orientation course are: clerical, secretarial, accounting, data processing, and marketing and distribution occupations.

In the business, marketing and management cluster, students are exposed to activities used in the flow of goods and services from the producer to the consumer or user. Some sales supporting functions that might be included are warehousing, buying, transporting, promoting, financing, researching, and management. Students are also exposed to the wide range of occupations involving the facilitating function of an office.

Students will be given an opportunity to decide which area of employment best suits them through the use of films, field trips, guest speakers, and other activities. Actual participation in the type of work done by persons currently employed in this field may also be included.

The content will vary from community to community since specific content is closely related to the resources of the community. Orientation of students should be to those occupations found within the employing community.

APPENDIX G

ECCMC BIBLIOGRAPHIES

As part of a continuing effort to make available materials housed within the ECCMC, special bibliographies such as these are published periodically. These annotated bibliographies lists materials for community, student, and teacher needs assessment related to curriculum planning and revision. The listing is not meant to be exhaustive of the field but representative of those materials available on free loan from the ECCMC. To obtain a 30-day loan copy write, call, or visit the East Central Curriculum Management Center, Illinois State Board of Education, Department of Adult, Vocational & Technical Education, 100 North First Street, Springfield, IL 62777 (217/782-0759).

ECCMC BIBLIOGRAPHY

ADULT EDUCATION

Adults Are Alive and Well in Illinois Office of Education, DAVTE, Springfield, IL 62777. 1976.

Workshop for administrators of adult vocational education which discusses assessment, planning, implementation, and evaluation.

Adult Language Screening Test Language Level Determination Lancaster-Lebanon Intermediate Unit 1110, Enterprise Road, East Petersburg, Pa 17520. July 1976.

The purpose of the test is to determine the level of understanding of oral directions given in English as well as the level of word recognition. The test is designed to meet the needs of the limited or non-English speaking adult education student. Instructions for administering the test are included.

Adult Language Screening Test Language Level Determination Lancaster-Lebanon Intermediate, Unit, 1110 Enterprise Road, East Petersburg, PA 17520. July 1976.

This test is not a teaching vehicle. Corrections of pronunication, structure, or item identification should not be made at any point during the conduct of the test. The purpose of the test is to determine the level of understanding of oral directions given in English as well as the level of word recognition. The test is designed to meet the needs of the limited or non-English speaking adult education student.

Adult Reader Steck-Vaughn Company, Austin, TX 78768. 1972. 127pp.

This book was prepared for use in teaching adults to read. It is based on the assumption that adults have a wide experience which children entering school do not have. Adults are interested in topics which would not be especially interesting to children. This book takes the psychological and background factors of the adult into consideration.

Career Development and Guidance Series Educational Projections Corporation, Glenview, IL 60025. 1970.

The filmstrip graphics and the presentation of subject matter is at adult level, but the vocabulary is third to fifth grade level. Each filmstrip presents a success story about someone who went back to school or continued schooling to qualify for a job that would provide a good future and interesting work.

Career Education of Adults The National Advisory Council for Career Education, U.S. Government Printing Office, Washington, DC 20402. 1977. 73pp. For sale-Stock No. 817-080-01736-9.

This paper examines career education of adults. It draws upon existing reports, articles, and data and it treats the current scene only, not the previous history of career education. Here "current scene" means roughly since 1971, when the term career education was introduced by Sidney P. Marland, Jr.

Delivering Vocational Instruction to Adult Learners Department of Adult, Vocational and Technical Education, Illinois Office of Education, 100 North First Street, E-426, Springfield, IL 62777.

This handbook is intended to provide an introduction to adult vocational education for new teachers and to serve as a reference for planners and teachers of adult vocational education programs.

Handbook for Teachers of Adult Occupational Education The University of the State of New York, The State Education Department, Albany, NY 12234. 1977. 96 pp.

The purpose of this handbook is to assist skilled individuals to become competent instructors in their field. It is designed to answer some of the questions that new instructors might have during their first few weeks of teaching. It might also be used as a point of departure for a training program or as a means of stimulating discussion during teachers' meetings.

A Model for the Evaluation and Revision of Adult Vocational and Non-Vocational Programs F. T. Wilkerson, University of Kentucky, Lexington, KY 40506. 1975. 220pp.

The purpose of this project was to develop and test a comprehensive model for the evaluation and revision of adult education programs. The model selected was a self-administered process evaluation without an on-site visit by a team of professionals. Included are a review of the literature, presentation of findings, the summary conclusions, and recommendations.

Resource Directory of the Southern Illinois Adult Education Service Center Southern Illinois University, Carbondale, IL 62901. 1976. 54 pp.

This service directory has been developed to assist Adult education in the southernmost part of the State of Illinois to control sources of help when certain adult education needs are identified.

The directory is organized in such a way as to identify people as resources in specific problem areas. The six areas identified are: (1) instructional skills knowledge (2) needs and skills in content (3) adult education theory and practice (4) supportive client service skills (5) management skills, and (6) communication skills.

ECCMC BIBLIOGRAPHY

BUSINESS AND OFFICE EDUCATION

Accounting Dallas Independent School District, Harper and Row, Publishers, Inc., New York, NY 10022. 1976. 180pp.

This publication is an individualized study course planned to assist the student in developing specific skills used by those in the world of business who maintain, analyze, and use records of transactions.

Accounting I Vocational Curriculum Laboratory, Cedar Lakes Conference Center, Ripley, WV 25271. 1978.

This program has been developed for secondary, postsecondary, and adult programs. It is intended to aid in the transition from high school accounting programs to the vocational school programs.

Activities and Projects for Use with General Business for Economic Understanding South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1976. 160pp.

This edition is dedicated to helping students develop a comprehension and an appreciation of our American business system and the economic setting in which it functions.

Some important features in this revision relate to metric education, career education, and consumer information. Activities at the end of each part involve students in writing, investigating, interviewing, problem solving, demonstrating, explaining and reporting, as well as other behavioral responses.

The Administrative Secretary Gregg Division of McGraw-Hill Book Company, New York, NY 10020. 1976. 534pp. Accompanied by *Challenging, Comprehensive Projects for Administrative Secretaries.*

This publication emphasizes the project method of training, a series of high-level, long-range assignments patterned as closely as possible on current business problems facing administrative secretaries in a variety of offices.

Advanced Dictation and Transcription Career Institute, Inc., Danbury, CT 06819. 1974. 453pp.

The fourteen chapters in this text were selected and arranged in a logical sequence of subject matter and difficulty which leads from the communication industry to people's concern with the environment. Each chapter is introduced with a 300-400 word description of the area and is marked for sustained dictation.

Aim for a Job in the Business Office Richards Rosen Press, Inc., New York, NY 10010. 1977. 159pp.

This book is designed to prepare its readers for the realistic world of working for a living. A variety of jobs are discussed from file clerk to administrative secretary. Included also are the requirements in skills and knowledge for the various job categories.

All About Banking Warren Schloat Productions, Inc., A Prentice-Hall Company, 160 St. Daniel Street, Florissant, MO 63031. 1975.

Provides a wide range of information about banking—its purposes and functions and stimulated interest in the many varied career opportunities offered in the field.

Applied Business Law South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1977. 687pp.

This new edition has been updated to incorporate significant developments and changes in laws that have been made in recent years. Every chapter includes new cases and problems to maintain accuracy and to enhance relevance and readability. The text has been carefully edited to simplify and clarify and, coherence, thus allowing the instructor to select any sequence in the presentation of units. A teacher's manual is available.

Applied Penmanship South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1976. 124pp.

Handwriting legibility is built through the use of this practical text workbook that provides a complete teaching plan for the improvement of handwriting skill. Penmanship drills, warm-up drills, corrective drills, diagnostic drills, and handwriting check lists are interspersed throughout the book.

Basic Business Mathematics Prentice-Hall, Inc., Englewood Cliffs, NJ 07632. 378pp.

Essentially, this is an arithmetic book. It consists of the application of basic arithmetic operations to common business situations. Since a strong arithmetic background is necessary for this course, the first section to the text consists of drills on basic arithmetic operations. Most of the material provides practice to improve one's skill and speed in handling addition, subtraction, multiplication, and division. Students with computational weaknesses will find this section of the book a helpful review.

A Bibliography of Free Loan Materials for Business Education Wisconsin Vocational Studies Center, University of Wisconsin, Madison WI 53706. 1976. 20pp.

Materials in this bibliography have been identified from throughout the United States. Materials collected in part of the ongoing operation of the center have been included, as have many items contributed by various departments on the Madison campus and teachers throughout the state.

Bluebird Series Teacher's Guide Alpha Phi Chapter, Delta Pi Epsilon, Northern Illinois University, DeKalb, IL 60115. 1977. Five laps in the series.

This learning activity has been designed to help secretarial students with practice in letter composition of various kinds to suit different job situations. It can be used most profitably in such classes as secretarial procedures, office and distributive occupations, advanced shorthand, business English and communications, and to serve as a refresher unit in adult education.

Business Communication: A Problem-Solving Approach Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 358pp.

This approach to business writing embraces several major concepts: (1) business communications are highly individualistic and cannot be written to formula; (2) to produce effective communicatons, students should be involved as deeply as possible in each writing situation; (3) examples of letters and reports are most effective when related to situations with which students are familiar; and (4) business communications defy discrete "typing" or classifications. The content of this text provides for students to act as sales manager of the regional office of a book publishing firm and face 33 situations that demand not only written skills but the exercise of judgement and the selection of alternatives.

Business and Consumer Arithmetic Mrs. Ouida V. Maedel, D.C. Public Schools/CBC Center, Shaw Jr. High School, 10th and Rhode Island, Avenue, Washington, D.C. 20001. 1977. 80pp.

This guide develops skills in basic mathematics functions and deals with the specific mathematical concepts applicable to personal use and to fields of employment. Components of instruction include training of clerical, stenographic, office practice, and bookkeeping students.

Business Correspondence/30 Gregg Division of McGraw-Hill Book Company, New York, NY 10020. 1976. 170pp.

This publication will help the student write effective communications without memorizing rules or forumlas. This program will show why each letter, memo, and report is different and will show how to deal with these differences. Throughout this program the student will have many opportunities to apply writing skills.

Business Education Yesterday, Today and Tomorrow National Business Education Association, 1906 Association Drive, Reston, VA 22091. 1976. 255pp.

The purpose of this book is to give its readers the facts necessary to perceive the relationships between the past and the present, with implications for the future. Part II deals with those vital concerns now facing teachers of business subjects in our schools. The present challenge that must be met is to provide the kinds of programs throughout the field that will meet the needs of the students. Part III attempts to examine tomorrow, predicting the future for business education and how to prepare for it.

Business English and Communication McGraw-Hill, Inc., New York, NY 10036. 1978. 546pp. Student Projects and Activities Manual also available.

This *Business English and Communication* program has been specially designed to provide students with the communication tools they will need on the job. It provides the broad, thorough training necessary to help students develop competence in each of the communication skills: reading, writing, speaking and listening. It begins by teaching students the fundamentals of communcation psychology. These fundamentals will help students to understand the basics of human relations and to be aware of what motivates people. Then, after students have learned how to develop good reading and listening skills, they will improve their general work skills and study the specifics of planning and writing communications that get results.

Business and Finance: Careers for Bilinguals/Carreras Para Bilingues Regents Publishing Co., Inc., New York, NY. 1976.

Familiarizes students with available job and career opportunities in business and finance and lets them see the ways in which bilingualism can work for them. Introduces a variety of employees which might be found in any large corporate office and discusses positions for workers whose job takes them outside the office.

Business Law/30 McGraw-Hill Book Company, New York, NY 10020. 1976. 220pp.

This book emphasizes the law as it affects young adults as consumers, as citizens, and particularly as entry-level workers. This course has been tailored to satisfy the needs of beginning workers in marketing, health, home economics, office trade, and technical occupations. The development of each important point of law is accompanied by an illustrative case. In most instances, these cases describe situations in which beginning workers might find themselves.

Business Law Syllabus The University of the State of New York, Albany, NY 12234. 1977. 87pp.

Some general objectives of this course are to provide the foundation for career exploration in the field of law; teach the purposes and uses of common legal documents; create a keen awareness of the need for legal assistance in a variety of business and personal activities; create an environment in which the student can apply his/her understanding of the principles of business law to a variety of situations affecting the daily activities of American workers and consumers; and teach through practical subject matter some of the basic characteristics of the American system of free enterprise.

Business Math/30 McGraw-Hill Book Company, New York, NY 10020. 1976. 124pp.

This publication is a short course designed to review the basic mathematics fundamentals, to relate computational skills to business problems, and to familiarize students with shortcut methods and the latest computational tools.

Business Mathematics Reston Publishing Company, Inc., Reston, VA 22090. 1978. 466pp.

This text is designed to facilitate the teaching-learning process for freshman classes in colleges and technical institutes. It will provide the student with: the fundamentals of a logical and careful approach to problem solving in a business context; basic mathematical procedures used in courses in accounting, finance, marketing, and statistics; an understanding of business procedures and business terms which will be useful to the student as a consumer, citizen, and business employee.

The Business Office Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 1978. 358pp.

This book is designed to help teachers help students to investigate and focus on specific career paths that appear interesting to them, with emphasis on the discovery of skills they like to use or think they would like to use. A wide range of office jobs and a variety of office skills used on those jobs are discussed and illustrated. The Office Career Guide chart provides students with the opportunity to summarize the job skills they like and dislike. Each job exploration has three dimensions: The setting; the summary; and the job skills needed to perform the work.

Business and Office Careers Fairchild Publications, Inc., New York, NY 10003. 1975. 199pp.

This book is planned to give students an opportunity to explore some of the jobs available in business and office careers and some of the skills needed for employment. The book includes a variety of job tryouts and unit skills that may be required on more than one job.

Business and Office Education - Model Training Plans for Secondary Intensive Office Laboratory and Cooperative Office Education Vocational Education Program Area, Indiana University, Bloomington, IN 47401. 1972. 137pp.

This manual contains model training plans for business and office education in a variety of related occupations. Learning activities include classroom courses and on-the-job training. The training plans are intended to be models only. They illustrate suggested content and format. Occupations include some of the following: bookkeepers, cashiers, computer operators, clerk typists, file clerks, keypunch operators, materials support occupations and secretaries.

Business and Office Occupations Cluster: Introduction to Vocations CE-337 New Jersey Vocational-Technical Curriculum Laboratory, Rutgers-The State University, Building 4103-Kilmer Campus, New Brunswick, NJ 08993. 1975.

This document, designed for use in introductory vocations courses, is useful for developing career-oriented experiences in business and office occupations. Career opportunities and the required formal education are described for administration, business ownership, clerical records systems and control, and secretarial.

Business Simulation-Practice Set South-Western Publishing Company, Inc., 5101 Madison Road, Cincinnati, OH 45227. 1976.

This set pertains to any small business. It is a revision of the set formerly entitled *Business Practice.* The simulation deals with office supplies and equipment. The student is employed as an office assistant. Most of the sales transactions are for cash with a few credit ones. The special journals used include sales, purchases, cash receipts and cash payments. A customers' ledger is also maintained. The competition time for this set should be from 15-20 hours.

Careers in Office Services Butterick Publishing, New York, NY 10013. 1975.

This audiovisual program outlines not only the various skills, but also the attitudes and temperament needed to succeed in office work.

Century 21 Accounting South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1977. 693pp.

This is a first text for high school accounting. It expands the whole scope of occupational information for young people who are interested in a career in accounting.

Adhering to the simple to complex philosophy, the content of the text is presented in 8 parts as follows: (1) the accounting cycle in its simplist form; (2) the accounting cycle with the combination journal and subsidiary ledgers; (3) an introduction to automatic data processing; (4) payroll systems; (5) the accounting cycle using special journals; (6) accounting for sales tax, bad debts, and depreciation; (7) accounting for notes acrued revenue and acrued expenses and (8) partnerships and corporations.

Century Typewriting 21 South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1977. 230pp.

A primary goal of this new edition of Century 21 Typewriting is to provide a sequence of learning materials and activities that will help every student reach optional skill levels within the limited time available for learning to type. Some of the features designed to achieve this purpose are: technique emphasis, controlled repetition, delayed figure/symbol typing, total setting, triple-controlled copy, speed/control building skill-transfer activities, related communication skills problem typing, production power building, and office simulations.

Clerical Office Procedures South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

This text is designed to develop competent, efficient office workers. Training is given in all office duties and procedures with the exception of those requiring a knowledge of stenography. Data processing and its effects on every office is thoroughly explained and illustrated. An important review of arithmetic and vocabulary fundamentals is provided. Contemporary human relations problems set in office situations develop vocational understanding.

Clerical Payroll Procedures South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1974. 46pp.

This text-workbook offers valuable job training in payroll procedures. The student is involved with the Crown Toy Company as a general clerk. This company employs 14 people; a general manager, two office workers, two outside salespersons, seven production employees on an hourly basis, and two production workers on a piece-rate basis. Students have the opportunity to use many of the terms, forms, and procedures common to payroll preparation, including the preparation of a weekly payroll.

Clerical Techniques for a Business Career Allyn and Bacon, Inc., Boston, MA 02210. 1975. 313pp.

This textbook accompanied by a teacher's guide and workbook is designed to provide an understanding of basic clerical techniques and procedures to show what these techniques and procedures mean in the efficient operation of an organization, and to help prepare technicians for the many different job opportunities that are available. It may be used in business, career education and orientation courses, as well as work experience programs. A primary purpose of this book is to acquaint students with a variety of entry level jobs for which business courses will prepare them.

The Clerk Typist, An Office Job Simulation South-Western Publishing Company, Incorporated, 5101 Madison Road, Cincinnati, OH 45227. 1974.

This set of materials simulates a clerk-typist position for a period of 5 six-hour days requiring approximately 30 clock hours for completion. This kit which contains an office procedure manual, five daily assignments packets, and supplies is provided for student exposure and training through repetition of tasks which clerk-typists normally perform in an office.

Communications Laboratory Dallas Independent School District, Harper and Row, Publishers, Incorporated, New York, NY 10022. 1976. 213pp.

This publication is an individualized study course planned to assist the student in developing specific skills used by those in business and industry who perform basic operations with adding and calculating machines, duplicate business data, file, transcribe from voice recordings, and handle correspondence.

Competency-Based Curriculum for Articulated Programs in Office Occupations in Louisiana Louisiana State Department of Education, Bureau of Vocational Education, P.O. Box 44064, Capitol Station, Baton Rouge, LA 70804. 1976. 245pp.

This document is the final report of a study for the articulation of competency-based curricula for office occupations. More than 69 office occupations were analyzed. All tasks listed in the job analyses were used to develop terminal performance objectives based on standards required on each job as determined from information obtained from sources such as businesses, textbooks, and State Civil Service brochures. These analyses are to be used to update the training for state, federal, and business entry level positions after the relevancy of the tasks and the validity of the performance objectives have been established.

Competency-Based Curriculum for Pre-Vocational Business and Office Cluster I & II West Virginia Vocational Curriculum Laboratory, Cedar Lakes Conference Center, Ripley, WV 25271. 1977.

This curriculum consists of experimental learning packs that sample a variety of competencies performed by various workers employed in the business and office cluster. The intent of the learning packs is to assist students in assessing whether or not they would like to prepare themselves for these kinds of work.

Concerns of Advisory Councils in Business and Office Occupations University of Illinois, Department of Vocational and Technical Education, Rurban Educational Development Laboratory, Urbana, IL 61801. 1971.

Discusses occupational advisory council concerns: orientation and exploration, preparation, placement, and adult and continuing education.

Current Transcription Practices in Business Firms—Monograph 130—South-Western Publishing Company, West Chicago, IL 60185. 64pp.

The purpose of this study is to provide a "source book" of information regarding current transcription practices in several hundred firms for office managers; to assist them in evaluating their own practices; and to provide a comprehensive summary of current transcription practices in use in these businesses.

Curriculum Development in Education for Business, National Business Education Yearbook, No. 15 National Business Education Association, 1906 Association Drive, Reston, VA 22091. 1977. 249pp.

This yearbook includes the broad, vertical spectrum of business curriculum development, including the elementary school, and through the four-year college or university. Included in the fourteen chapters are chapters on developing education for business in secondary schools, coordinating the secondary school and the two year post secondary school, developing business teacher education programs and models of competency-based business teacher education programs.

Dictation Materials for the Most Frequently Used Words in Business Correspondence Utah Technical College, Provo, UT 84601. 1975. 111pp. Paperback

This book presents the 1,000 most frequently used words in most business correspondence. In fact they account for over 80 percent of all words used in business writing. Each word is intentionally used at least six times within seven lessons. This system may have particular significance for shorthand teachers attempting to help students gain the skill and speed necessary to succeed in a vocational setting.

Duplicating Machine Processes: Stencil, Fluid, Offset, and Copier South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

The jobs in this book follow a learn-as-you-work approach in teaching students the techniques of duplication processes. There are 11 stencil, 8 fluid, 6 offset and 2 photocopy jobs. Each job presents a duplication project and gives sufficient instruction to complete it; and as the jobs increase in difficulty, the potential of each medium becomes more apparent to the student.

Effective Army Writing U.S. Army Adjutant General School. 1969. 84pp.

This publication is provided for resident and extension (correspondence) course instruction only. It reflects the general thought of the U.S. Army Adjutant General School and conforms to the Department of the Army doctrine as closely as possible. This text discusses the principles of good writing, offers advice, and gives some specific illustrations.

Electronic Calculation of Business Problems Stenospeed, Inc., Oak Lawn, IL 60453. 1978.

This instructional text has been designed to meet the needs of individuals and/or groups of students studying machine calculation. Incorporated into the text are the necessary materials which permit the learner to use the booklet as a self-instructional device. Performance goals which identify what is expected upon completion of each section are included. Each person will have an opportunity to check the progress made by completing the three self-tests provided within the text.

Employee's Manual: The Accounting Clerk, An Office Job Simulation South-Western Publishing Company, 355 Conde Street, Chicago, IL 60185. 1977. 33pp. The Accounting Clerk - An Office Job Simulation kit accompanies this manual.

The activities of the simulation are based on a thorough study of accounting clerk positions in a variety of business offices. Since the duties and responsibilities of accounting clerks may vary from office to office, the job assignments in the simulation are those which are most representative. An "employee" who successfully completes the simulation should be generally qualified to seek and maintain the position of accounting clerk in any typical office. The simulation, which is self-instructional, can be used in almost any type of training program—accounting/bookkeeping, office clerical practice, recordkeeping, business machines, related instruction for cooperative education, block programs, model offices, etc. It can be assigned on an individual basis or as a total class project. The simulation lends itself well to the use of various types of business machines and equipment such as a typewriter, calculator, or billing machine.

English the Easy Way South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1977. 220pp.

A lively presentation of English grammar, punctuation, spelling, and word study is provided in this easy-to-learn, easy-to-teach text-workbook. It contains many interesting examples based on topics of interest to students.

Exploring Careers in Business South-Western Publishing Company, Cincinnati, OH 45227. 1978. 186pp.

This book deals with two career clusters: business and office, and marketing and distribution. It is based on sound career development and learning theory. It provides needed information and activities and draws the student into the learning process. Students learn about the organization and operation of various businesses as they begin insight into careers in those businesses.

Exploring Clerical Careers South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1974. 71pp.

This easy-to-read text-workbook introduces the student to the world of work in clerical careers in 20-25 clock hours. The publication is well illustrated and is written on the hands-on exploration level. It contains paths and trails rather than the conventional units and chapters, and it is student-activity-oriented.

Exploring Data Processing Careers South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1975. 154pp.

An easy-to-read text-workbook which introduces the student to the world of work in careers in data processing in 20-25 clock hours. It is well illustrated and provides the student with an opportunity to read, write, and explore various career opportunities in data processing. No equipment is necessary. It contains paths and trails rather than the conventional units and chapters.

Fundamentals of College Accounting Meral M. Fielding and Richard A. Wright and Roy E. Crosno, Glencoe Press, Beverly Hills. 1972. 369pp. Includes workbook.

Provides overall picture of the principles involved in accounting and economics.

Future Business Leaders of America in Arizona Business and Office Occupations (FBLA) Arizona Department of Education, Division of Vocational Education, Phoenix, AZ 85007. 1975.

The *FBLA-Business Modules* are developed to assist the business instructor in developing FBLA curricula in Arizona. Learning activities have been selected and developed into complete teaching modules to be inserted, replaced, or removed as needed in a three-ring loose-leaf notebook.

General Business for Economic Awareness Mrs. Ouida V. Maedel, D.C. Public Schools/CBC Center, Shaw Jr. High School, 10th and Rhode Island Avenue, Suite 900, Washington D.C. 20001. 1977. 83pp.

This publication should prepare students for successful and intelligent living in our economic system as individuals who: understand the operations of business as they relate to the consumer; manage their personal business and financial affairs competently and efficiently; recognize the importance of giving serious thought to the selection of a career; understand the importance of favorable interrelation of an individual's combined role of intelligent consumer, skillful employee, and responsible citizen.

General Business for Economic Understanding South-Western Publishing Company, Cincinnati, OH 45227. 1976. 629pp.

The purpose of this course in general business is to improve economic citizenship through the study of the business and economic environment in which we live. Topics covered are Your Economic World; How Business Services the Economy; Looking at Careers; Being a Wise Consumer; Practical Money Management; Using Banking Service; Using Credit Wisely; Insuring Against Economic Risks; Saving and Investing; Moving Ideas, Goods, and People; Government, Labor and World Trade; and Starting Your Career. Also included is a section on Moving Toward Metric Measurement.

General Recordkeeping Gregg Division of McGraw-Hill Book Company, New York, NY 10020. 1976. 536pp.

This book has been designed to provide students with the training they will need in order to manage their personal finances and to choose and work effectively in a business and office career. To meet these objectives, the textbook covers the basic skills and activities that apply to both personal and business recordkeeping. In addition, the textbook emphasizes career awareness through the use of case studies, career exploration, and continual mention of typical job titles that the student will encounter in the business world.

Gregg Dictation and Transcription: Individual Progress Method Gregg Division of McGraw-Hill Book Company, New York, NY 10020. 1974. Books I and II.

This kit has been prepared for the student who knows Gregg Shorthand theory and can write new materials at 50 words a minute. The objectives of the program are to give the student the ability to write unpreviewed new matter Gregg Shorthand at a minimum of 80 words a minute for three minutes and the skill to transcribe mailable correspondence. Included are Book I—lessons 1-40, Book II—lessons 41-80, Transcript, Self-Check Pad, and a Letterhead Pad.

The Gregg Reference Manual Gregg Division/McGraw-Hill Book Company, Manchester Road, Manchester, MO 63011. 1977. 326pp.

This manual is intended for anyone who writes, transcribes or types. It presents the basic rules that apply in virtually every phase of business writing, as well as the fine points that occur infrequently but cause trouble when they do. It offers an abundance of examples and illustrations so that one can quickly find a model on which to pattern a solution to a specific problem. It also provides the rationale underlying specific rules so that one can manipulate the principles of style with intelligence and taste.

Gregg Shorthand for Colleges Gregg Division of McGraw-Hill Book Company, New York, NY 10020. 1976. 448pp.

This book is tailored to meet the needs of advanced shorthand students. It is carefully designed to provide students with opportunities to refine both dictation and transcription skills. In most cases, this publication will be used after students have completed *Gregg Shorthand for Colleges, Transcription.* Accompanied by a workbook and students' transcript.

Gregg Shorthand Series 90 Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 1977. 280pp. Instructor's Handbook, Students' Transcript and workbook accompany this text.

The major objectives of this series are to teach the students to read and write Gregg Shorthand rapidly and accurately in the shortest time possible and to provide students with transcription readiness by building their vocabulary and developing their ability to spell and punctuate correctly. This text is divided into three parts—Principles; Reinforcement; Shorthand and Transcription Skill Building. Eight of the 45 lessons are devoted to review.

High School Typewriting I: General Course Glencoe Press, Beverly Hills, CA 90211. 1977. 149pp. Teacher's Orientation for High School Typing.

Book I concentrates on developing basic skills and is orientated toward typing for personal use. The book contains 150 lessons, called jobs. These jobs are in groups of 25; each group is a level. Each level takes about six weeks to complete, and has specified minimum goals for speed and accuracy.

Special Features: Instructions are easy to read, attainable goals are spelled out for every job, and drill material is provided at the beginning of jobs as well as throughout the texts.

High School Typewriting II: Vocational Course Glencoe Press, Beverly Hills, CA 90211. 1977. 297pp.

High school typewriting is a comprehensive two-year program for learning, developing, and applying typewriting skills. The first year of the course concentrates on acquiring and building basic typewriting skills and knowledge. The second year emphasizes the application of learned skills and knowledge in a variety of realistic, vocationally related situations.

Houston House: A Job-Training Office Stimulation Approach to Record Keeping McGraw-Hill, Incorporated, New York, NY 10020. 1976.

This program is designed to prepare students in general record keeping procedures and to train them to hold jobs in an office.

How: A Handbook for Office Workers Wadsworth Publishing Company, Inc., Belmont, CA 94002. 1975. 235pp. Supplementary materials and teaching aids accompany this book.

This book is designed to assist business students and office personnel by answering the mechanical and format problems connected with typing, transcribing, writing, and mailing business letters and reports. *How's* primary function is to act as a reference. It may also be used, however, as a supplementary classroom learning activity for potential secretaries and typists. By using materials provided in the instructor's manual, the instructor may reinforce the principles presented in the handbook. It is organized to meet two major problem areas concerned with written office communications—mechanical problems and operational problems.

How to Succeed in a School Business by Really Trying New Jersey Vocational-Technical Curriculum Laboratory, Rutgers—The State University, Building 4103—Kilmer Campus, New Brunswick, NJ 08903. 1975. $1.50 (CE-297)

This guide is intended to enable a teacher to establish and operate a school or class business designed for the elementary level; the material is adaptable to the secondary level.

Human Relations in Business South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

This text-workbook deals in the attitudinal realm of human relations. As such, it leads students through a well-organized series of thoughts and activities that will help them develop a positive attitude toward the need to understand themselves, to relate well with co-workers, employers, and customers, and to communicate effectively. Written in an informal style, the text will be useful as a basic instructional tool in any vocationally oriented instructional program that prepares students for the work world. It contains 6 chapters and 39 class activities that require approximately 30 class hours to complete.

Improving Supervisory Performance Lester R. Bittel, McGraw-Hill Book Company, New York, NY 10020. 1976. 404pp. Accompanied by a performance portfolio.

This publication is designed for the student who has acquired in basic courses an understanding of the essential ingredients of supervision. This book helps the student move from comprehension to accomplishment by concentrating on the performance factors which are most common to supervisory management, regardless of the type of entérprise.

The Individual, Business, and Society Prentice-Hall, Inc., Englewood Cliffs, NJ 07632. 1972. 468pp.

This covers an impressively broad range of topics in business and society today by making the issues come alive as challenges for individual readers to wrestle with for themselves. The central focus of this volume is on self-examination, and self-determination. It is a book focusing on the individual's role in solving conflicts that arise in the course of one's work and one's life. The book concerns itself with the major social issues of our time. Some of the themes that recur throughout the book are: (1) the purposes of the enterprise; (2) the scope of the enterprise; (3) the application of personal values to practical problems; (4) the balancing of value imperatives; (5) business policy and the administrative point of view; and (6) the awareness of conflict situations.

An Individualized Model for a Differentiated Secretarial Single Skills Lab U.S. Department of Health, Education, and Welfare, Washington, DC 20202. 1977. 134pp. Final Report.

The purpose of this study was to implement a single skills lab and develop or select twenty-five units for instruction in the secretarial science curriculum at Elgin Community College. A task analysis was conducted to determine the most common tasks completed by area office personnel. This information was used in selecting and developing units in the single skills lab. All units, whether purchased commercially or developed as original materials, were completed by students and evaluated as to their instructional effectiveness.

Instant Notetaking Career Institute, Inc., Danbury, CT 06810. 1976. 214pp. Accompanying this text is a Teacher's Guide and Workbook.

This text was developed for busy people who cannot spend long hours learning a shorthand language; however, it is based on some of the principles of Stenospeed Shorthand. It is designed to improve one's listening and reading skills and to become an expert at recognizing major points and ideas. This system uses the familiar longhand alphabet and five easily written symbols.

Integrated Secretarial Studies South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

These materials provide a new concept in the development of the stenographic and secretarial skills of typing, taking dictation, transcribing, filing, machine operation, and communication. These skills are integrated into the framework of business office practices and procedures with which the stenographer and secretary should be familiar.

Intensive Clerical and Civil Service Training South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

This text-workbook will help the student prepare for an office job in industry or in government. The first four parts provide basic materials for an intensive review of grammar, punctuation, and capitalization; vocabulary and spelling; arithmetic; and business management. The next three parts give the student an opportunity to gain experience in taking several type of tests. Approximately 30 hours are required for the completion of this text-workbook.

Introduction to Business and Office Careers McKnight Publishing Company, Bloomington, IL 61701. 1975.

This kit should enable students to: research job placement needs; prepare to open a job placement office; experience business and office functions; assess personal pre- and post-differences in attitudes, interest, knowledge, and skills related to business and office careers; and make intelligent educational and career planning decisions.

Introduction to Business Simulation Reston Publishing Company, Inc., Reston, VA 22090. 1977. 131pp.

This book contains twelve business games that are designed by students in a first course in business. The twelve games cover a wide variety of decision-making situations that provide exposure to many different business problems. Setting prices, scheduling a paper machine, negotiating with suppliers, and running a professional sports team are some of the situations presented.

Introduction to Data Processing Gregg Division, McGraw-Hill Book Company, New York, NY 10020. 1977. 342pp.

This book is designed to meet the needs of two types of students—those students who must be familiar with the concepts and applications of data processing as they affect all business careers, and those students who will pursue a career specifically in business data processing.

This book explores the field of data processing—its methods, it jobs, and its equipment—as well as the operation of various types of data processing equipment, and the application of the different data processing methods of typical business situations.

Introduction to Modern Accounting Ronald J. Thacker, Prentice-Hall, Inc., Englewood Cliffs, NJ. 1974. 634 pp. Includes student guide and assignment forms.

Includes relevant subject matter in modern introductory accounting for students of business administration, prospective professional accountants, and students outside business administration.

Introductory Data Processing—An Intensive Course South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1973. 137pp.

This text, accompanied by a practice set, provides a basic introduction to automated data processing concepts. The content covers manual, mechanical, unit-record, and computer data processing systems. No equipment is needed. These materials can be used in any course where a short unit in data processing is to be taught. A suggested four-page test is provided in the teacher's manual.

Machine Accounting: An Instructor's Guide The University of the State of New York, The State Education Department, Albany, NY 12224. 1976. 60pp.

This guide is designed to prepare students to operate the type of accounting machines used in many medium sized businesses. The material provides flexibility in scheduling and instruction to answer a variety of employment and educational needs. A course may be scheduled for a full year in a secondary school program or as a single semester course. It can be offered as a shorter module coupled with other related modules or used in an adult program for occupational upgrading.

Machine Transcription and Dictation John Wiley and Sons, Inc., 605 3rd Avenue, New York, NY 10016. 1978. 246pp.

This book presents a thorough introduction to the variety of machine transcription equipment currently used in offices. Belt, disc, cassette and loop-based equipment and their operating controls are comprehensively reviewed. Machine transcribers often encounter a variety of equipment on the job. This equipment review should help orient persons to common equipment-use procedures. Instruction for careful listening and good transcription habits is given. The emphasis is on neatness, accuracy, and preparation of mailable copy. A transcriber may occasionally have to serve as a dictator/originator or may be called on to work with dictators/originators and tactfully establish guidelines for productive dictation techniques.

Machine Transcription in Modern Business John Wiley and Sons, 605 3rd Avenue, New York, NY 10016. 1978. 177pp.

This textbook was designed to prepare students for jobs as machine transcribers and word processors. The purpose in creating this instructional package was to address three perceived challenges in machine transcription education: 1) to provide students with a review of the basic langauge skills necessary for effective and productive machine transcriptions; 2) to help students gain an understanding of the various types of organizations they will encounter in the world of work and to introduce them to the products, services, and terminology unique to those organizations, and 3) to help students become proficient transcribers by providing them with realistic experience in transcribing a wide variety of business communications.

Management Prentice-Hall, Inc., Englewood Cliffs, NJ 07632. 1978. 683pp.

This book is about the job of the manager. It describes how men and women go about managing the people and activities of their organization so that the goals of the organization, as well as their personal goals, will be achieved.

Managerial Cost Accounting Harold J. Bierman, and Thomas R. Dyckman, The Macmillan Company, New York, NY. 1971. 440pp.

Designed for a second course in managerial accounting. Oriented toward decision-making situations which involve the use of accounting data.

Math for Business Careers Gregg and Community College Division of McGraw-Hill Book Company, New York, NY 10020. 1975.

This book develops the mathematical skills needed for entry-level jobs in such career clusters as business and office, distribution and marketing, personal service, public service, hospitality and recreation, agribusiness, communications, and consumer homemaking. Accompanied by a performance guide.

Modern Business Management: A Systems and Environmental Approach McGraw-Hill Book Company, New York, NY 10020. 1974. 536pp.

This book presents a practical introduction to business organizations and their management. The text integrates management principles and processes with organizational theory, helping students understand what an organization is and how management can help the organization operate more effectively. Accompanying the text is a workbook and a study guide.

The New World of Advertising Crain Books, Chicago, IL 60611. 1975. 129pp.

This volume is designed to give advertising practitioners a chance to look back and see where they've been so that they might decide where it is they are going. Hopefully, it will broaden and deepen one's knowledge of the business, as well as the knowledge of consumer activists, critics, regulators, legislators, and young people looking to marketing careers.

Office Update: A Course for Adult Business Education Teachers Maryland State Department of Education, Division of Vocational-Technical Education, P.O. Box 8717, BWI Airport, Baltimore, MD 21240. 1976. 123pp.

This course guide is designed to assist teachers to better prepare adults seeking employment in office occupations by providing them with units in career opportunities, communications, job applications, language art skills, use of office machines, and some "plus factors" needed for successful employment.

Opportunities in Office Occupations Vocational Guidance Manuals, 620 South 5th Street, Louisville, KY 40202. 1976. 159pp. Paperback

This book analyzes the myriad of office occupations, educational preparation needed, duties and requirements of the job, the work situation, salary grades, and the employment trends, today and the future. Teachers, students, and vocational counselors should find this book helpful in preparing for office occupations now and for the future.

Personality Development for Business South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1975. 248pp.

This textbook guides the student in developing work habits that lead to success in the business office. Human relations, business psychology, and personality development are emphasized. Follow-up activities and case problems at the end of each chapter give the student the opportunity to develop practical solutions to personal and business behavior problems that arise in the business office.

Potpourri of Flexible Instruction South West Area Business Education Association, Sunset Hills Country Club, Edwardsville, IL 62025. 1975.

This compilation of office and business occupations presents student involvement in 21 business and office occupations. The purpose of this project was to show classroom students the work that recent graduates from their respective communities were doing in entry level jobs. This was accomplished by reading student evaluations of the jobs, viewing slides, listening to audio tapes and viewing transparencies prepared by teachers. Students were permitted to complete assignments at their own pace.

Practical Record Keeping South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1975. 650pp.

Practical Record Keeping, Course 1, is designed to provide meaningful business problems at the beginner level, equip students with basic vocational skills, provide students with an understanding of business forms, and help them develop proper work habits and attitudes.

All problems in the book, as well as the illustrations and cartoons, have been updated to reflect current business and office procedures.

Prevocational Performance Objectives Michigan Department of Education, Vocational-Technical Education Service, Box 30009, Lansing, MI 48909. 1978.

Prevocational performance objectives are included in a separate booklet for each of the following areas: Home Economics, Business Education and Industrial Arts. Each set of performance objectives contains career education and safety components. The career education aspects of the performance objectives include mathematic skills, reading and language arts skills, self-awareness, exploration, consumer and decision-making skills.

Project: Methods and Materials for Enterpreneurship Education Phase I Final Report Illinois State Board of Education, Department of Adult, Vocational and Technical Education, 100 North First Street, E-426, Springfield, IL 62777.

The purpose of Phase I of the project was to study the personality characteristics of entrepreneurs from the perspective of career development theory. These characteristics will be used as a basis for the development of curriculum materials for teaching entrepreneurship.

Punctuation: A Programmed Approach South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1972. 207pp.

This programmed book of instruction helps students to learn and apply the 27 basic punctuation rules that are needed most frequently in business writing situations. It is ideal for use as an intensive review of punctuation in business English classes and as a short instructional unit in shorthand, typing, office procedures, or block programs.

Resource Guide for Performance-Based Word Processing Instruction Department of Industrial Education, University of Maryland, College Park, MD 20742. 1977. 76pp.

This resource guide has been developed to provide vocational teachers with up-to-date curriculum and instructional information. Organized in four sections the guide covers the following: How To Develop a Performance-Based Instructional Program; Occupational Information; Curriculum Resources; and General Resources. Annotations of widely used curriculum guides, tests, films, slides, transparencies and other media are included.

Secretarial and Administrative Procedures Prentice-Hall, Inc., Englewood Cliffs, NJ 07632. 1978. 716pp.

This text is designed for those who aspire to a secretarial career in the challenging and fast-moving business world. The purposes of *Secretarial and Administrative Procedures* are two-fold: (1) to provide information and instruction to enable one to carry out his/her secretarial duties, and (2) to inspire one's confidence to accept additional responsibilities and in turn attain promotions.

The Secretary: An Integrated Block Program-Integrated Skill Builders Gregg Division/McGraw-Hill Book Company, Manchester Road, Manchester, MO 63011. 1978. 250pp.

The primary objective of this program is to prepare students to perform a wide range of secretarial tasks under the conditions they will experience on the job. Throughout the year the emphasis is on performing tasks rather than on recalling information read in a textbook. The program is organized into four parts. Each part is designed to lead one to a higher level of secretarial competence.

The Secretary—An Office Job Simulation South-Western Publishing Company, Inc., 5101 Madison Road, Cincinnati, OH 45227. 1975.

Materials in this packet simulate a secretary's position for a period of 5 six-hour days, requiring approximately 30 hours for completion. Included are an employee's office procedure manual, an appointment calendar, five daily assignment packets, and other supplies provided to give the student training in completing the job tasks which a secretary normally performs in an office. Opportunities for use of the adding machine, transcription machine, and duplicating machines are provided.

Secretarial Office Procedures Gregg Division of McGraw-Hill Book Company, New York, NY 10020. 1976. 363pp. Accompanied by an Instructor's Manual and Key.

This publication is designed to provide the prospective secretary with the knowledge and opportunity to gain skills needed by office workers today.

Secretarial Office Procedures South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1977. 696pp.

The content of this edition reflects both the technological changes that are gaining widespread acceptance and the social changes. Will become acquainted with word processing, micrographics, and reprographics. They will learn about the concern for productivity, economic use of resources, flow of work, and the interrelatedness of business functions.

The Secretary on the Job Gregg Division of McGraw-Hill Book Company, New York, NY 10020. 1976.

This project is designed to provide training for the student-secretary. It resembles as closely as possible a secretary's actual on-the-job experience. Set in the context of the administrative office of a retail business firm, the 55 jobs prepare the student to perform office tasks. The fact that the secretary's work is an integral part of the administrative functions of an office—purchasing, selling, customer service, public relations, personnel administration—is shown both in the nature of the jobs assigned and in their relationship to jobs performed by other staff members.

This set is comprised of the following items: job agenda booklet, pad of working papers, pad of index cards, and pad of 20 number 10 envelopes.

Secretarial Training for the Changing Office Harcourt Brace Jovanovich, Incorporated, 757 Third Avenue, New York, NY 10017. 1977.

This book provides comprehensive coverage of such major topics as typewriting, dictation and transcription, telephone techniques, filing and records management, business communication, the job hunt, and adminstrative support services. It also brings into focus the new area of word processing so that students will know what to expect if, after graduation, they find themselves in a word processing center. Performance goals at the beginning of each chapter are an integral part of this book.

Shorthand Dallas Independent School District, Harper and Row, Publishers, Inc., New York, NY 10022. 1976. 73pp.

The publication is an individualized study course planned to assist the student in developing specific skills used by those in business who take dictation and transcribe mailable copy at a typewriter.

Simulated Office Dallas Independent School District, Harper and Row, Publishers, Inc., New York, NY 10022. 1976. 328pp.

The publication is an individualized student course planned to assist the student in developing specific skills used by those in the world of work who perform basic clerical, secretarial, and general managerial functions in business offices.

Simulation in Business and Office Education Owens Fields, B. June Schmidt and Jeffery R. Stewart, Jr. Division of Vocational Education, Richmond, VA 23216. 1978.

The purpose of this guide is to assist business teachers to effectively use simulations that involve student interation. The simulations can provide valuable learning experience for students in all levels of business and office education—business exploration, basic business and occupational preparation. The guide includes a description of the general purposes and specific objectives for using simulations; guidelines for development and adaptation of simulations; description of the model office facility with suggestions for using simulations; and a description of simulation games.

Stenograph's Computer Compatible Touch Shorthand: Revised Keyboard and Theory Book I, Stenographic Machines, Inc., Skokie, IL 60076. 1976. 137pp.

This text is designed to bring early rewards to the student. Taking dictation, reading, reading touch notes, and developing transcription skills all start in the very first lesson. All students are motivated to develop speed and accuracy at a speed compatible with their abilities. The student text contains 75 lessons and is presented in 15 segments, with 5 units to each segment.

Stenography Refresher Course Part II, Instructors Guide for An Adult Course The University of State of New York, Albany, NY 12224. 1976. 111pp.

This book is the second publication on stenographic refresher course. Part I, published in 1973, was aimed at those who had learned and used stenography and had then been away from it for a number of years. Completion of Part I, or its equivalent, should be a prerequisite for admission to a part II class. Its contents are suitable for use in the adult education programs of school districts and Boards of Cooperative Educational Services and in community colleges.

Stenospeed Shorthand Career Institute, Inc., Danbury, CT 06816. 1974. 236pp.

This text is a new one-volume edition of *Stenospeed Shorthand.* The order of presentation of principles has undergone major changes from the three-volume edition. More than 20 Brief Forms have been eliminated, and several of those retained have acquired revised outlines. All practice sentences and reading exercises have been completely revised.

A Study for the Articulation of Competency-Based Curricula for Articulated Programs in Office Occupations Louisiana State Department of Education, Bureau of Vocational Education, P.O. Box 44064. Capitol Station, Baton Rouge, LA 70804. 1976. 243pp. Final Report.

Job analyses for office occupations were obtained from the State Civil Service Manual, Dictionary of Occupational Titles, and various business sources. All tasks listed in the job analyses were used to develop terminal performance objectives based on standards required on each job. These analyses are to be used to update the training for state, federal, and business entry-level positions after the relevancy of the tasks and the validity of the performance objectives have been established.

Teaching Shorthand and Transcription: An Instructional Guide Division of Vocational Education, Department of Education, Commonwealth of Virginia, Richmond, VA 23216. 1977. 28pp.

This guide has been developed to assist all occupational preparation teachers who are involved with the teaching of shorthand and transcription. It is organized into sections which deal with organization and administration of the stenographic program, the stages of the stenographic instruction, and increasing the effectiveness of the program. A performance goal, teaching suggestions, and evaluation suggestions are given in each section related to the instructional program.

Timed Writings About Careers South-Western Publishing Company, 355 Conde Street, West Chicago, IL 60185. 1975. 90pp.

The purpose of this text is to supplement the timed writings included in the basic typewriting textbook and to provide pertinent and interesting material to help young people make their own career decisions. It is designed to accompany textbook presentations for each semester of typing as directed by the teacher.

Typewriting Business Education Service, Division of Vocational Education, State Department of Education, Richmond, VA 23216. March 1976. 75pp.

This guide is intended to present suggested content, instructional procedures, and behavioral objectives which are appropriate to instruction in typewriting. Included are the basic objectives for students enrolled in a course in typewriting, the psychological principles of learning, and the teaching techniques that apply to the teaching of typewriting. The guide also provides information about class organization, suggested evaluation procedures for measuring student progress, and grading students in typewriting and outlines for 34 topics including objectives, suggested student teacher activities, evaluation procedures, and suggested texts and reference materials.

Typewriting Syllabus: Part I-Introduction/Part II-Modules The University of the State of New York, the State Education Department, Bureau of Occupational and Career Curriculum, Albany, NY 12234. 1976. 40pp.

This syllabus has been designed to help the student attain a high level of performance in typewriting. Student performance standards have been identified for each level of learning and skill development. Suggestions are provided for individually pacing student progress and a series of competency tests makes it possible for each student to push forward at his/her pace.

Typing I Vocational Curriculum Laboratory, Cedar Lakes Conference Center, Ripley, WV 25271. 1978.

This curriculum has been developed for secondary, post-secondary, and adult education programs and has been designed to facilitate individualized instruction. This package is not a complete typing program; however, the skills taught from this curriculum will qualify persons for entry-level positions such as typing and clerk typists.

Typing I General Course Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 1977. 281pp.

In addition to retaining and enhancing the best features of its predecessors, *Typing I* and the materials correlated with it incorporate many significant new features, including these: (1) dual lesson structure. Each lesson is structured for presentation and completion either as a single unit or as two mini-units. Thus the program is functionally designed for courses organized on either a class-period or a modular basis; (2) job simplification. The program concentrates on the most common kinds of production work and de-emphasizes a number of variations in letters, tables, and manuscripts. Also, it stresses a standard placement plan for letters, the use of which corresponds to business practice; (3) remedial clinics. The clinic following the fourth and the eight lessons in every 12-lesson part of the book. They strengthen skill development and provide a course adjustment point. Tests for each part of the textbook are included in the Teacher's Manual and Key.

Typing 2 Advanced Course Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 1977. 281pp.

Typing 2 provides many significant new features, including the following: (1) dual lesson structure; each lesson is structured for presentation and completion either as a single unit or as two mini-units. Thus the program is functionally designed for courses organized on either a class-period or a modular basis; (2) national geography; designed to make the names, places, and products of this country more familiar. Each state is the subject of one or more timed writings and the locale of a production project and; (3) job simplification designed to increase output power. It gives more assignments on fewer ways to arrange production. It also standardizes placement in letters, reports, and tables. It provides 18 period-length "skill clinics" for optional practice as well as a full program of tests that may be reproduced for classroom use.

Wilson RV: An In-Basket Simulation for Supervisory and Management Development Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 1977. 90pp.

The material in this booklet is an instructional simulation designed to develop supervisory and management competencies. It can be used effectively to complement courses on principles of supervision, principles of management, management problem solving, or organizational behavior. It can also be used as a training aid for supervisory and management personnel enrolled in adult continuing education programs. Students who use this simulation will be confronted with a variety of realistic problems, issues, and decision-making situations that are commonly encountered by supervisory-management personnel.

Word Processing East Central Curriculum Management Center, Illinois State Board of Education, 100 North First Street, E-462, Springfield, IL 62777. 1977. 129pp.

Section I of the guide is an overview of word processing, Section II deals with office cluster careers, Section III through VI provides information on competencies, learning activities, curriculum models, and special needs students.

Section VII and VIII includes tools and resources to help develop and teach word processing programs.

Word Processing East Central Curriculum Management Center, Illinois State Board of Education, 100 North First Street, E-426, Springfield, IL 62777. 1977. 129 pp.

This handbook has been compiled to provide basic information for business teachers who wish to begin integrating word processing concepts into the curriculum. Business departments which have word processing equipment as well as those which have no equipment at all will find this handbook helpful. Included is information about the historical development of word processing, organizational patterns, word processing systems, types of equipment and suggestions for teaching word processing skills.

Word Processing in the Modern Office Cummings Publishing Company, Inc., 2727 Sand Hill Road, Menlo Park, CA 94025. 1976. 246pp.

This text defines the concept of word processing within the framework of modern office settings. It describes the ways office workers can adapt sophisticated office equipment to process words. The book is mainly intended to provide the student with a concept of the interface between equipment and people in the process of moving from idea to printed word within businesses. Various word processing equipment, systems, and procedures are described.

ECCMC BIBLIOGRAPHY

CAREER EDUCATION (Senior High School)

Aim for a Job in The Trucking Industry Richards Rosen Press, Inc., New York, NY 10010. 1972. 160pp.

In this book all kinds of jobs leading to a well-paying career are described in detail. It includes such facts as: what the job really is; the type of person who may be successful in it; where one may go to acquire necessary knowledge and skills; and the pay scale and other benefits.

Career Development: High School Board of Education of the City of Chicago, 228 North LaSalle, Chicago, IL 60601. 1977. 262pp.

The following objectives of the program have been identified to carry out these career development goals: to develop awareness of the relationship between school activities and world of work; to provide a systematic study of occupations; to provide career experiences through work-related field trips, walking tours, and resource speakers; to recognize the social value of necessary work. In addition to these general program objectives, more specific objectives are stated for each of the guidance units to be explored by students.

Career Education in The High School Olympus Publishing Company, Salt Lake City, UT 84105. 1977. 461pp.

Emphasizes career decision-making and career preparation; yet it does not neglect career awareness and career exploration. It defines career education as a process that begins at birth and extends through adulthood. This book relates the concepts of career education to the goals of the high school. It discusses career development and the significant role of the high school in that process. It deals with the subject of work values, with particular emphasis on the concern for values characteristic of high school students.

Career Planning and Course Selection Grade Level 9-12 Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 31pp.

This booklet is one of several career guidance components created for secondary education as follows: Student Interpretation Process for Career Maturity Inventory, Job Hunting and Interviewing Skills, Career Planning and Course Selection, and Educational and Job Placement Process. Each of the components contains goals, objectives, specific implementation strategies, suggested resource and evaluation instrumentation.

Careers with Material Handling Equipment Manufacturers Materials Handling Institute, Inc., 1326 Freeport Road, Pittsburg, PA 15238. 1974. 32pp.

This booklet presents a diversity of career opportunities in virtually every industry and activity. A wide range of company sizes, product specialities, and organizational structures are discussed. The need for job orientation and training on a continuing basis, regardless of education or background is also stressed.

Exploring Arts and Humanities Careers in the Community Grades 7-12 Technical Education Research Centers, Inc., 44 Brattle Street, Cambridge, MA 02138. 1976. 68pp. For sale by U.S. Government Printing Office, Washington, DC 20402. Stock No. 017-080 01648-6.

This book focuses on methods through which students can become directly acquainted with arts and humanities practitioners and their work by using community resources for out-of-school experiences. Discusses ways of obtaining community cooperation and suggests sites for out-of-school experiences in arts and humanities fields. Curriculum models can be adapted for any occupations.

Exploring Careers in the Humanities (A student guidebook, grades 7-12) Technical Education Research Centers, Inc., Cambridge, MA 02138. 1976. 180pp. For sale by U.S. Government Printing Office, Washington, DC 20402.

This illustrated student guidebook is one of six companion documents in *Career Exploring Series: Arts and Humanities.* This book discusses such topics as what tasks people do in their work, how they prepared for their career, how they acquire work, what the job outlook is, what are the advantages and disadvantages—including moral conflict—of particular arts and humanities occupations. This guidebook lists some sources of additional occupational information and includes job titles showing the wide range of career possibilities as well as a glossary of unfamiliar words associated with the career field.

Exploring Dance Careers (Student Guidebook, grades 7-12) Technical Education Research Centers, Inc., Cambridge, MA 02138. 1976. 32pp. For sale by U.S. Government Printing Office, Washington, DC 20402.

This book discusses such topics as what tasks people do in their work, how they prepared for their career, how they acquire work, what the job outlook is, what are the advantages and disadvantages—including moral conflicts—of particular arts and humanities occupations. This guidebook lists some sources of additional occupational information and includes job titles showing the wide range of career possibilities as well as a glossary of unfamiliar words associated with the career field.

Educational and Job Placement Process Grade Level 12 Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 25pp.

This booklet is one of several career guidance components created for secondary education as follows: Student Interpretation Process for Career Maturity Inventory, Job Hunting and Interviewing Skills, Career Planning and Course Selection, and Educational and Job Placement Process. Each of the Components contains goals, objectives, specific implementation strategies, suggested resource and evaluation instrumentation.

Exploring Music Careers (Student Guidebook, grades 7-12) Technical Education Research Centers, Inc., Cambridge, MA 02138. 1976. 72pp. For sale by U.S. Government Printing Office, Washington, DC 20462.

This book discusses such topics as what tasks people do in their work, how they prepared for their career, how they acquire work, what the job outlook is, what are the advantages and disadvantages—including moral conflicts—of particular arts and humanities occupations. This guidebook lists some sources of additional occupational information and includes job titles showing the wide range of career possibilities as well as a glossary of unfamiliar words associated with the career field.

Exploring Theater and Media Careers (A Student Guidebook, grades 7-12) Technical Education Research Center, Inc., Cambridge, MA 02138. 1976. 144pp. For sale by the U.S. Government Printing Office, Washington, DC 20402.

This book discusses such topics as what tasks people do in their work, how they prepared for their career, how they acquire work, what the job outlook is, what are the advantages and disadvantages—including moral conflicts—of particular arts and humanities occupations. This guidebook lists some sources of additional occuptional information and includes job titles showing the wide range of career possibilities as well as a glossary of unfamiliar words associated with the career field.

Exploring Visual Arts and Crafts Careers (Student Guidebook, grades 7-12) Technical Education Research Centers, Inc., Cambridge, MA 02138. 1976. 168pp. For sale by the U. S. Government Printing Office, Washington, DC 20402.

This book discusses such topics as what tasks people do in their work, how they prepared for their career, how they acquire work, what the job outlook is, what are the advantages and disadvantages—including moral conflicts—of particular arts and humanities occupations. This guidebook lists some sources of additional occupational information and includes job titles showing the wide range of career possibilities as well as a glossary of unfamiliar words associated with the career field.

Exploring Writing Careers (Student Guidebook, grades 7-12) Technical Education Research Centers, Inc., Cambridge, MA 02138. 1976. 80pp. For sale by U. S. Government Printing Office, Washington, DC 20402.

This book discusses such topics as what tasks people do in their work, how they prepared for their career, how they acquire work, what the job outlook is, what are the advantages and disadvantages—including moral conflicts—of particular arts and humanities occupations. This guidebook lists some sources of additional occupational information and includes job titles showing the wide range of career possibilities as well as a glossary of unfamiliar words associated with the career field.

Handbook for Infusing Career Development Grades 7-12 Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 41pp.

The material in this book contains a strategy to guide teachers through a writing process that includes: identifying goals and objectives, selecting instructional strategies, and designing evaluation techniques, all of which result in a set of instructional plans which build career development instruction into existing courses.

Idea Book: Ideas for Infusion Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 247pp.

Each of the infusion examples in this book contains goals, objectives, specific implementation strategies, suggested resources and evaluation instrumentation. The contents and processes involved in the components are consistent with accepted career development theory and practice.

An In-School Job Program Grade Level 6-12 Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 35pp.

This booklet is one of several career guidance components created for secondary education. Each of the components contains goals, obejctives, specific implementation, strategies, suggested resources, and evaluation instrumentation.

Job Hunting and Interviewing Skills Grade Level 11-12 Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 56pp.

This booklet is one of several career guidance components created for secondary education. Each of the components contains goals, objectives, specific implementation strategies, ,suggested resources, and evaluation instrumentation.

Looking Ahead: Occuptional Exploration and Career Planning Course Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 198pp.

This book is one of several career development components created for secondary education. Included are suggestions for goals, objectives, evaluation, and some possible resources for strategies which are appropriate for a ninth grade course dealing with occupational exploration and career planning.

Opportunities in Accounting Grades 7-14 Vocational Guidance Manuals, A Division of Data Courier, Inc., Louisville, KY 40202. 1977. 147pp.

This book looks at all types of accounting careers—public, private, teaching, and government. It discusses the difference between bookkeepers and accountants, details the qualifications necessary for accountants, and explores the different fields of accounting work, such as tax and management specialties. One chapter of the book concentrates on the Certified Public Accountant—how to qualify for the certificate and what the status of a CPA does for an accountant.

Opportunities in Acting Careers Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 138pp.

This book is intended to be helpful to all aspiring actors and actresses. It presents the facts about how to get started; the major acting media; and the jurisdiction of the five actor's unions. It even discusses living costs in New York City. It features first-hand advice from authors, producers, casting directors and actors including Theodore Bikel, Joan Crawford, and Anne Jackson. Appendices list professional organizations, accredited schools, and recommended readings.

Opportunities in Architecture Today Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 117pp.

This book outlines the many and varied career opportunities encompassed in the creation of our physical environment, describing in detail the rewarding careers open to those trained in architecture. It discusses the aptitude, education, internship, licensure and compentory practices necessary to become an architect. Appendices list professional organizations, accredited schools, and recommended readings.

Opportunities in Drafting Today Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 112pp.

This book discusses the attributes and the education which are necessary for a career in drafting, the role of draftsperson, women in drafting, apprenticeships, working conditions, advancement and related fields. Chapters are included on analysis of job classification, advance-related fields, and state apprenticeships agencies.

Opportunities in Electrical and Electronic Engineering Grade 7-14 Vocational Guidance Manuals, Louisville, KY 40202. 1977. 127pp.

This new edition covers power, communications, and control engineering, electronics and related fields. It gives the facts about high school preparation, how to choose a college and how much it will cost, how to land the first job, working conditions, salaries, and advancements.

Opportunities in Electrical Trades Grade 7-12 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1974. 141pp.

The contents of this book revolve around topics of interest to individuals contemplating careers in the electrical trades. It gives an overview of the industry as well as covering guidelines for occupational planning and selection. It is an important guide to apprenticeship specializations, wages, and fringe benefits. Appendices list professional organizations, accredited schools, and recommended readings.

Opportunities in Environmental Careers Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 251pp.

This book presents in detail more than twenty-five professions, from agricultural engineer to wildlife conservationist. A thorough presentation of 2-year and 4-year environmental curricula is discussed; thus allowing student to determine the type of education needed to qualify for the position they want.

Opportunities in Forestry Careers Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 119pp.

The author of this book defines forestry as the science, practice, and art of managing and using for human benefit, forest lands and the natural resources that occur on and in association with forest lands, including trees, other plants, animals soil, water, and related air and climate. This book gives a complete, organized look at the forestry profession; what it is, what foresters do, the educational preparation required, and the kind of work it involves. Appendices list professional organizations, accredited schools, and recommended readings.

Opportunities in Foreign Language Careers Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 137pp.

This book illustrates the wide range of careers open to people with a knowledge of more than one language. It discusses the choice of a foreign language, educational preparation, special training, and finding a job. The need for more Americans to learn foreign languages is based on the expanding business world, export trade, as well as geo/political concerns. Appendices list professional organizations, accredited schools, and recommended readings.

Opportunities in Free-Lance Writing Grade 7-14 Vocational Guidance Manuals, Louisville, KY 40202. 1977. 108pp.

This book is an insider's guide to the techniques employed by established writers. It tells how to detect marketable non-fiction materials, prepare salable manuscripts, circulate finished articles among likely publishers, and evaluate final offers. Some of the tricks of the trade, such as "slanting" are also revealed. The appendix includes information on writers' associations and recommended reading.

Opportunities in Graphic Communications Grade 7-14: The Printing Industry Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1971. 92pp.

This book provides an introduction to the printing industry, the many different kinds of jobs available, and describes how a typical printing order is handled from start to finish. Other contents include: a brief history of the industry, getting started in graphic communications, and a glossary of terms.

Opportunities in Interior Design Grade 7-14 Vocational Guidance Manuals, Louisville, KY 40202. 1977. 122pp.

Interior design offers a unique and creative career. This career seeks to create "total" environments that are attractive, affordable, and appropriate for the entire physical and psychological surroundings. Information is also given concerning employment outlook, educational preparation, advantages and disadvantages, salaries, related fields, professional organization, how to get started and recommended readings.

Opportunities in Journalism Grade 7-12 Vocational Guidance Manuals, Louisville, KY 40202. 1977. 139pp.

In this book, jobs in every facet of contemporary journalism are described from the small town weekly to the big city daily, and the wire service bureau. Special sections tell how to prepare for a journalism career, how to get started, and what the future of the newspaper business will be. It also gives information about educational preparation, salaries, professional organizations and a list of recommended reading.

Opportunities in Law Enforcement Grades 7-14 and Related Careers Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1976. 169pp.

This book discusses the significant new trends emerging in law enforcement occupations, including higher education requirements, job specialization, crime prevention efforts, and increased work force needs. It covers criminal justice careers at the city, county and state levels; in military and federal agencies; in court, corrections, and private security positions.

Opportunities in Library and Information Science Grade 7-12 Vocational Guidance Manuals, Louisville, KY 40202. 1977. 175pp.

This book describes the gamut of librarianship, from running a rural public library to administering a collection of archives. The different types of libraries and information centers are explained and a typical librarian's day is described. Educational preparation is detailed at the high school and college levels, including library technical assistant programs.

Opportunities in Pharmacy Careers Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 197pp.

This book gives a comprehensive description of the challenging and exciting profession of pharmacy and encourages student to explore this field. Emphasis is placed on the role of the pharmacist as a community servant concerned with public health and welfare of all people. Pharmacy is a versatile career which offers varied specialized employment opportunities.

Opportunities in Psychiatry Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1977. 143pp.

This book presents a comprehensive survey of the psychiatric field. It describes the scope and history of psychiatry and its personal and educational requirements. Employment settings, types of work, salaries, and advancement opportunities are discussed. Private practice, hospitals, research and industry are included.

Opportunities in Psychology Careers Today Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1976. 128pp.

This test presents psychology as both a science and a profession. As a science, it is the study of how people perceive, think, feel, and act. As a profession, it is concerned with predicting how people will act, helping people to modify their behavior, and helping organizations and even communities and societies to change.

Opportunities in Publishing Careers Grades 7-14 Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1975. 160pp.

This book covers the scope of book publishing from children's religious and textbooks to technical, scientific, and medical publishing, university presses and paperback publishing. In addition, it includes chapters on: getting started, jobs in publishing, libraries, newspapers, magazines, specialized publishing and self-employment. Appendices list professional organizations, accredited schools, and recommended readings.

Opportunities in Recreation and Leisure Time Careers Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1976. 123pp.

This book is a career guidance tool, intended for persons interested in the broad field of recreation and leisure. It covers three broad areas; (1) national resources, including local, state, regional and national parks; (2) community services for the mainstream and the special populations which encompass programs indoors and outdoors, in towns, cities, schools, institutions and private and voluntary agencies; and (3) commercial recreation, tourism, amusement parks, lodging and transportation.

Opportunities in Travel Careers Vocational Guidance Manuals, 620 South Fifth Street, Louisville, KY 40202. 1976. 158pp.

This book presents a variety of careers in all the major travel, transportation, and tourism industries. It concentrates on careers in all three of these broad fields but selects those in which the work requires direct service to travelers or vacationers, or promotion of travel and destinations. Jobs in such fields as aircraft and automobile manufacture and auto repair are omitted because little or no travel is required. Appendices list professional organizations, accredited schools and recommended readings.

Papermaking Career Opportunities Occupational Analysis Field Center, P.O. Box 608, Madison, WI 53701. 1975. 12pp.

This booklet gives an overview of the variety of occupations in this industry as well as the broad range of training and skills necessary to fit the job. Specific information is given to employee outlook, earnings and benefits, working conditions, and training and promotion.

Studio in Advertising Design, Fashion Design and Illustration, Product Design, Stage Design Volume 3 New York State Education Department, Bureau of Secondary Curriculum Development, Albany, NY 12200. 1974. 78pp.

This document provides teaching guidelines and information on advanced elective courses in a studio art program for grades 10, 11, and 12. The courses are presented in four sections: (1) studio in advertising design—advertising and production, lettering, illustrating, and color reproduction; (2) studio in fashion design and illustration—elements and principles of design and fashion in advertising; (3) studio in product design—role of the designer, implications of product design, and mechanical drawing; and(4) studio in stage design—unity of sets, lighting, costume, and makeup.

Student Interpretation Process for the Career Maturity Inventory Grade Level 8-12 Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 21pp.

This booklet is one of several career guidance components created for secondary education. Each of the components contains goals, objectives, specific implementation strategies, suggested resources, and evaluation instrumentation.

Student Interpretation Process for the Assessment of Career Development Inventory Grade Level 9-12 Coloma Community Schools, P.O. Box 218, Coloma, MI 49038. 1977. 19pp.

This booklet is one of several career guidance components, created for secondary education. Each of the components contains goals, objectives, specific implementation strategies, suggested resources, and evaluation instrumentation.

ECCMC BIBLIOGRAPHY

CONSUMER EDUCATION

Advertising and the Consumer Current Affairs, Wilton, CT 06897. 1973.

This filmstrip series is a guide for teenagers who will soon be entering the marketplace as adults.

Be a Better Shopper; Buying in Supermarkets Cornell University, Ithoca, NY 14850. 1968.

This slide set is designed to develop and improve shopping skills, help shoppers stretch their supermarket dollars, point out values and rewards of planned spending, and emphasize the importance of participation by all members of a family in deciding money matters.

Before You Buy; a Course in Consumer Credit Consumer Communications, Inc., Hollywood, CA 95718. 1971.

This cassette kit provides students with the information and attitudes they will need to deal effectively with consumer credit.

Buyer Be Wise; Practical Economics for the Consumer Current Affairs, Wilton, CT 06897. 1973.

This filmstrip series is a guide for teenagers who will soon be entering the marketplace as adults.

Caritis University of Tennessee, Agricultural Extension Service, Knoxville, TN 37900. 1972.

This slide set discusses driver training, insurance coverages, good driving habits, and power maintenance.

Charge it, Please Visual Education Consultants, Inc., Madison, WI 53701. 1969.

This filmstrip explains charge account credit, types of charge accounts, and charge account costs.

Classroom Money Management Kit Cuna Mutual Insurance Society, Madison, WI 53700. 1971.

The cassettes touch on nearly every aspect of consumer credit and a game involves the student in the problems of family finances. Calendars can be used by students to schedule or record their expenses, income, and savings each month.

Competency-Based Consumer Education and Home Economics Linda Letwin Cochran, Specialist, Personnel Department, Vocational-Technical Education Service, Box 30009, Lansing, MI 48904. June 1977. 507pp.

These competency-based consumer education materials have been developed for grades 9 through 12. The materials are organized into instructional sets which integrate consumer education into all home economics curriculum areas. Each instructional set contains consumer competencies, performance objectives, learning activities, objective reference tests, student references and teacher references.

Consumer Advertising Proctor and Gamble, Education Services, P.O. Box 14009, Cincinnati, OH 45214. 1974.

This filmstrip set explores advertising and the changing American marketplace, advertising's place in the marketing chain, the preparation and placement of consumer advertising, and the evaluation of advertisements.

Consumer Advertising Proctor and Gamble, Educational Services, Cincinnati, OH 45200. 1977.

Includes teacher's manual, poster and 8 student worksheet duplicating masters.

Looks at how advertising is practiced, how it relates to other steps in bringing a product to market, what advertising does for the consumer, the advertiser, and the economy.

Consumer Choice, the Driving Force of a Market Economy The Procter & Gamble Company, P.O. Box 14009, Cincinnati, OH 45214. 1976.

This filmstrip set examines the basic economic principles that govern the consumer market system. It leads students through the steps a company takes in developing, producing, and marketing new or improved products.

Consumer Credit Charles A. Bennett Company, Inc., 809 West Detweiller Drive, Department IES5, Peoria, IL 61614. 1976. 243pp.

The purpose of this book is to explain the basic principles of consumer credit to all the "new adults" in the United States. With so many state legislatures lowering the age of majority from 21 to 18, it has become imperative for young people to understand their rights and responsibilities regarding the use of consumer credit.

Consumer Decision Making: Guide To Better Living South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1977. 522pp.

This edition presents a combination of materials from two companion volumes: *Consumer Economic Problems* and *Consumer Guide for Buying.* The result is a textbook that illustrates specifically how individual buying decisions affect and are affected by the total economy. Economic principles and suggested buying practices are woven into a fabric that moves from the experiences of students to the responsibilities of adults as they perform the economic roles of worker, consumer, and citizen.

Consumer Economic Problems South-Western Publishing Company, 355 Conde Street, West Chicago, IL 60185. 1977. 650pp.

The subject matter of the book is highly integrated so that the student gets a realistic picture of the forces at work in our economic society. The students learn about credit not only in its economic function but also in its relation to consumer legislation, the law of contracts, business practice, management of income and spending, and government. The variety of subject matter and problem material in this book enables the teacher to appeal to students of a wide range of abilities.

Consumer Economics: The Checking Account Western Curriculum Coordination Center, University of Hawaii, College of Education, Wist Hall 216, 1776 University Avenue, Honolulu, HI 96822. 1977.

An adult performance level curriculum is an attempt to identify skills and knowledge which provide functional literacy in a specific area of human activity and to suggest methods and materials of teaching these competencies to adults. Within the area of consumer economics one of the performance goals for each adult is to be able to use a checking account as a system of exchanging money. This guide deals with the concept of a checking account, information on check writing and recording checks, making a deposit, and reconciling a bank statement.

Consumer Education: A Guide for the Community College Institute of Life Insurance, Education Series, 277 Park Avenue, New York, NY 10017. 1973. 69pp.

This guide is being presented in a limited edition for distribution to selected educators in order to determine its effectiveness as a tool in the preparation of consumer education curricula.

This guide is divided into six major color-coded sections: planning, buying, borrowing, protecting, investing, and sharing. Each of the six major sections contains six subsections as follows: rationale; key concepts; performance objectives; suggested outline of topics; teaching suggestions/learning activities and resource materials.

Consumer Education Curriculum Guide for Ohio Vocational Education Division, State Department of Education, Columbus, OH 43215. 1976. 172pp.

This guide has been designed to assist students in understanding economic principles and developing personal decision-making processes which will contribute to their effective participation in the American economic system.

Consumer Education for Kindergarten Through Grades 8 Illinois State Board of Education, Program Planning and Development Section, 100 North First Street, Springfield, IL 62777. 1976. 56pp.

The objectives of this publication are: 1) to assist school administrative personnel with the integration of consumer education into the curriculum at the elementary level; and 2) to assist teachers in the planning and implementation of consumer education concepts at the primary intermediate, and upper elementary levels in the various disciplines.

Consumer Education-Part I Aims Instructional Media Services, Inc., P.O. Box 1010, Hollywood, CA 90028. 1971.

Designed for secondary students and college community groups, this filmstrip series provides basic consumer information of the complete consumer spectrum.

Consumer Education Part 2 Aims Instructional Media Services, Inc., P.O. Box 1010, Hollywood, CA 90028. 1971.

Designed for secondary students and college community groups, this filmstrip series provides basic consumer information of the complete consumer spectrum.

Consumer Education Programmed Instruction Booklets Alpha Phi Chapter of Delta Pi Epsilon, Northern Illinois University, DeKalb, IL 60115. 1970. Available for sale from Delphi Pi Epsilon, Gustavus Adolphus College, St. Peter, MN 56082.

These booklets are designed for use at the secondary level. This series is a 12-unit, 14-booklet set of materials on the following consumer education topics: The Individual Consumer in the Marketplace; Budgeting and Money Management; Using Consumer Credit; Buying Goods—Food; Buying Goods—Clothing; Buying Goods—Household Furnishings and Appliances; Buying Services; Buying Transportation; Using Leisure Time, Energy, and Money; Housing; Making Use of Insurance; Savings and Investments; Consumer Taxes; The Consumer in Society; Instructor's Handbook furnished free.

Consumer Filmstrip Series Institute of Life Insurance, Educational Division, 277 Park Avenue, New York, NY 10017. 1968.

This filmstrip illustrates young people as well as adults in the marketplace purchasing consumer goods.

Consumer Finance John Wiley and Sons, Inc., 605 Third Aveune, New York, NY 10016. 1977. 337pp.

The purpose of this book is to help informed consumers get the most for every dollar spent through smart shopping and buying. Specific ways are given for getting more for each dollar spent. At the end of each chapter are applications to help one apply the information given. Included also is a list of additional consumer information resources.

Consumerism and Management New Hampshire Department of Education, Division of Vocational-Technical Education, Home Economics Education, 105 London Road, Concord, NH 03301. 1976. 242pp.

This guide is written with the intent of assisting teachers in their efforts with students to aid them in values determination and familiarization with a process by which consumerism and management decisions are made in the context of the family and the larger American economy. Values and goals as they relate to decision making, planned spending for the individual as a member of society, and career choices within the areas of consumerism and home management are included.

Consumer Mathematics Glencoe Publishing Company, Inc., Encino, CA 91316. 1978. Teacher's Manual and Workbook Accompany.

This text is designed primarily for students who have an interest in becoming better consumers. The mathematics that is reviewed at the beginning of the text develops skills needed by the average consumer. Formal theorems are avoided; rather, the important ideas are stated in familiar terms and highlighted in color. Consumer applications are given throughout the mathematics review to enable the students to see how mastering the skills presented in the book will help them to solve problems they encounter in their daily lives.

Consumer Protection Program Kit Consumer and Home Economic Education Program, Flint Community Schools, Flint, MI 48501. 1976.

This kit contains visual aids and brochures for handouts from appropriate agencies. Topics include: Knowing Deceptions and Frauds, Identifying Guidelines, Protecting and Preventing Personal Involvement; Procedures for Effective Complaining; Contacts for Correcting Abuses; Agencies Responding to Consumer Problems; Understanding Small Claims Court; Pursuing Class Action Suits; Seeking Legal Help; Supporting Consumer Legislation; Expressing Concerns to Legislators; and Knowing Reliability of Media Coverage.

Credit and Collection: An Advanced Level Option for Finance and Credit The University of the State of New York, Bureau of Occupational Education Curriculum Development, Albany, NY 12234. 1976. 46pp.

The information presented in this guide is designed to assist in the preparation of students for employment in some area of finance and credit as well as to help those individuals already working in the field to upgrade their skills.

Credit Concepts Visual Education Consultants, Inc., Madison, WI 53701. 1969.

Discusses credit, criteria for obtaining credit, types of credit, guidelines for selecting credit types, credit sources, how credit costs are determined, credit responsibilities and credit cautions.

Credit Sources Visual Education Consultants, Inc., Madison, WI 53701.

This filmstrip set explains sources of credit, types of lending institutions, criteria for the availability of credit, agencies which lend credit for specific purposes, characteristics of credit from specific companies, and factors which determine credit costs.

Curriculum Design for Consumer Education K-14 California State Department of Education, Sacramento, CA 95814. 1974. 70pp.

This publication presents a foundation on which comprehensive local programs of consumer education can be built. It provides a conceptual framework for consumer education drawn from the academic disciplines. Curriculum design for consumer education offers assistance in organizing consumer education programs concerned with developing skills, attitudes, and understandings that contribute to personal satisfaction, consumer competence, and social responsibilities. All of which are important in the allocation and use of consumer resources to shape a life style that contributes to the quality of living of individuals, families and communities.

Curriculum Materials in Consumer Education Volumes I, II, and III Minnesota Instructional Materials Center, 3554 White Bear Avenue, White Bear Lake, MN 55110. 1975. 1142pp.

This book is organized into nine problem areas dealing with consumer education. Each problem is dealt with at three conceptual levels: Sub I, I, and II. Stage Sub I is a very simple conceptual system without norms for behavior; Stage I is a simple, concrete conceptual system with generalized norms for behavior; and Stage II is a more complex conceptual system with breaking away from the generalized standard. The student materials for each of the three stages are presented as follows: a curriculum outline which includes objectives, directed activities, suggestions for feedback to students, a list of materials required for teaching each stage and teacher references. Supporting materials including comparative prices, case studies, worksheets, and special references are also given.

Dealing With Life Insurance Institute of Life Insurance, 277 Park Avenue, New York, NY 10017. 1976. 6pp.

This card game, based on "gin rummy" and "Go Fish" is the medium used to communciate the wide variety of options available in life insurance coverage. Contents of the package include five decks of cards—each with instructions for the play of two games, (1) The Choice in Years and (2) Putting It Together—and Instructor's Guide.

Decisions State Department of Public Instruction, Division of Vocational Education, Indianapolis, IN 42604. 1976.

This slide/tape presentation is designed to help you "sell" consumer and homemaking education to your school and community.

Economics from the Consumer's Perspective Science Research Associates, 259 East Erie Street, Chicago, IL 60611. 1975. 277pp.

This book is intended for use in a variety of courses, including a one-semester introductory economics course emphasizing personal economic decision making, an economics course for nonmajors, a course in consumer economics or personal economics, or with appropriate supplementation, personal finance, home economics, or a more traditional, two-semester introductory economics course. Its content deviates from the approaches of the traditional introductory economics books, which are government and business policy oriented, and focuses upon upper division economics courses, such as human capital and time constraints.

Family Financial Management South-Western Publishing Company, Inc., Cincinnati, OH 45227. 1976.

Actual situations covering money management are provided in the one month's transactions for a single, young person and newly married couple. Two months' transactions are provided for a family with children. Materials include a narrative of receipts and payments, checkbook and a file. Set requires 12-15 hours for completion.

Food Buymanship Kraft Foods, Educational Department, 500 Peshtigo Court, Chicago, IL 60690. 1971.

This filmstrip outlines basics for teaching food buying principles to help students get the most value from food dollars.

A Guide to Consumer Markets, 1976/1977 Helen Axel, Editor, The Conference Board, Inc., 845 Third Avenue, New York, NY 10022. 1976.

This statistical source book is the seventh annual issue. It is designed to help marketers and planners make daily decisions that will affect their company's future position in the market place. Their comprehensive understanding of the present economic scene, relevant past trends, and likely future growth are the necessary ingredients to intelligent decision making. Although the figures in the Guide are the most current available at the time the book went to press, new material is issued throughout the year. Those wishing to secure the most recent figures should contact the Board. (Address above.)

How to Answer...When Money Talks Paul S. Amidon & Associates, Inc., St. Paul, MN 55116. 1975. 31pp. This booklet may be ordered from National BEW, 6111 Sunrise Drive, Fridley, MN 55432.

The aim of this booklet is to help people with their personal economics. The emphasis is not on facts, but on a method and an orderly thinking approach as applied to personal money management and building financial independence. Major topics discussed are: A Rational Way of Thinking, Installment Buying, You and Your Credit Rating, Saving Money, Investments, and The Full Service Commercial Bank.

How to Buy U.S. Department of Agriculture, Consumer and Marketing Service, Washington, DC 20202. 1976.

This poster shows how to buy meat, poultry, eggs, dairy products, fruits, and vegetables by looking at the grade.

Inflation; Causes, Consequences, Controls Public Affairs Office, Price Commission. 1972.

This filmstrip set features interviews with experts, and with citizens affected by inflation; explains its causes, characteristics and social impact. It also outlines various means of coping with inflation; examines value conflicts posed by the option of accepting increased unemployment as an antidote to inflation.

The Installment Contract Visual Education Consultants, Inc., Madison, WI 53701. 1969.

This filmstrip set explains installment credit including reading the contract; understanding the contract; avoiding blank contracts; avoiding clauses such as "add-on," "balloon," and "acceleration;" and also paying promptly.

Instructional Patterns for Consumer and Homemaking Education California State Department of Education, Sacramento, CA 95814. 1976. 386pp.

Materials in this text are interdisciplinary in nature and are designed to be utilized in kindergarten through adult education programs. Phase 1 involves the development of consumer education concepts. Phase 2 provides the basis for program development. The concepts and generalizations relate to five instructional areas: child development and family relations; clothing and textiles; foods and nutrition; housing, equipment and furnishings; and management of resources. Materials are designed for use at the junior high, senior high, community college and adult levels.

Insurance for the Home Insurance Information Institute, New York, NY 10000. 1973.

This filmstrip is designed for use at the high school or college level. It discusses the homeowners' policy, the property and perils involved, the liability coverages, and the costs affecting home insurance.

It's Your Money—Book I and Book II Steck-Vaughn Company, 807 Brazos, P.O. Box 2028, Austin, TX 78768. 98pp. Reading Level 7.5 grade.

The purpose of these two booklets is to help young students and adults learn how and why money should be spent wisely. The first chapter in Book I presents a review of basic mathematics operations to reinforce the students' speed and accuracy in computational skills. Other chapters present topics on: The Ways of Wise Shopping; Wrestling with Wages; Dollar Wise and Penny Foolish; Merchandising for Rent; Money for Rent; How to Manage your Auto Insurance Dollar, and The Insurance Jungle.

Let's Go Shopping Changing Times Education Service, Washington, DC 20006. 1973.

This filmstrip teaches how to develop basic skills and attitudes toward shopping in order to meet personal and family needs with limited resources in a marketplace that presents unlimited choices.

Let the Buyer Prepare Procter and Gamble, Professional Services Division, P.O. Box 14009, Cincinnati, OH 45214. 1972.

This filmstrip is a teaching tool to illustrate basic precepts of good buying. The precepts are applied specifically to the purchase of toiletries, but by implication they are extended.

Life Insurance Fact Book American Council of Life Insurance, 277 Park Avenue, New York, NY 10017. 1975. 126pp.

This book is a reference source with tables, charts, and interpretive text. It presents a statistical portrait of the life insurance business. The fact book data was derived from annual statements provided by life insurance companies and through surveys conducted by the Council.

1976 List of Worthwhile Life aand *Health Insurance Books* Institute of Life Insurance—Health Insurance Institute, 277 Park Avenue, New York, NY 10017. May 1976. 80pp.

The intent of this reference booklet is to help find sources of life and health insurance that best serve individual needs. Some topics discussed are consumer information, studies of special aspects—life and health insurance, career information, history of life and health insurance and reference sources.

Living Consumerism: Acting, Designing, Creating, Moving, and Discovering Department of Adult, Vocational and Technical Education, Illinois State Board of Education, 100 North First Street, E-426, Springfield, IL 62777. 1976. 77pp. ERIC ED 123424.

This publication serves as an idea stimulator to facilitate learning. Emphasis has been placed on wise decision making, economic competence, and preparation for multi-roles in society. The following subject areas have been discussed through learning competencies: Community Involvement; Consumer Decision Making—Values and Goals; Rights, Responsibilities, and Protective Actions; Advertising and Its Implications; Managing of Basic Necessities; Does Credit Meet Your Needs—Tool or Crutch?; and Using Discretionary Time Profitably.

Making Ends Meet Guidance Associates, Pleasantville, NY 10574. 1972.

Widely practiced spending habits are observed in the filmstrip as well as methods of guiding spending sensibly so that consumer dollars may obtain substantial, long-range satisfaction.

Managing Your Money Allyn and Bacon, Inc., 420 Atlantic Avenue, Boston, MA 02210. 1977. 551pp.

This book presents five units of detailed information on the following topics: (1) income, budgeting, and wise purchasing (2) consumer credit and personal savings (3) your insurance program (4) investments, and (5) taxes and assets.

Charts, maps, and graphs are in color for easy viewing. At the end of each chapter there are review questions, case histories, activities and suggested readings.

Managing Your Money Cuna Mutual Insurance Society, Madison, WI 53700. 1969.

This game involves the student in the problems of family finances. It is designed for players of nearly any age.

Marriage and Money Institute of Life Insurance, 277 Park Avenue, New York, NY 10017. 1973.

This filmstrip illustrates how to recognize money problems, decide on goals, establish a plan, and develop consumer skills.

Mathematics for the Consumer South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1975. 382pp.

The materials in this book are organized into 11 units that include 53 sections. The beginning units develop the fundamental principles and operations through a study of problems faced by individuals in their daily lives. These units deal with personal money records, banking transactions, buying personal and household needs and personal financing. New principles and new types of problems are introduced in graded sequence, one at a time. Illustrative examples and model solutions enable the student to progress with a minimum of assistance.

Maytag: Product Information and Educational Materials The Maytag Company, Newton, IA 50208. 1976.

This looseleaf notebook prepared by the Maytag Home Economics Department contains product information and literature related to all Maytag appliances—washers, dryers, dishwashers, and food waste disposals.

The Money Book Butterick Publishing, 161 Sixth Avenue, New York, NY 10013. 1976.

This workshop has been designed to guide students into an understanding of what money is, how it can be managed, what credit is, and how it can be wisely used. Also included is information on savings accounts, checking accounts, taxes, and insurances.

Money, Credit, Banking National BEW, 6111 Sunrise Drive, Fridley, MN 55432. 1976. 22pp. Available on loan from the East Central Curriculum Management Center.

The content of this booklet deals with money, the use of credit, our banking system, the Federal Reserve System, loan service, money transfer services, special services, trust services, and investments.

Money Management Program Money Management Institute, Chicago, IL 60600. 1968.

This filmstrip program presents accurate and objective information that today's consumers need to become economically competent.

Mod Money Management National BEW, 6111 Sunrise Drive, Fridley, MN 55432. 1976. 22pp.

There are seven sections in this booklet. Each one of the sections is a source on a different topic, but all of the sections are concerned with the use and abuse of money. Some examples are: how teen-agers spend their money, how families spend their money, budget planning, buying decisions, how one is influenced through the mass media, credit bureaus, and protecting what you own.

Our Credit Economy Guidance Associates, Pleasantville, NY 10574. 1969.

Part 1 explores the phenomenonal growth of credit, and examines the advantages and disadvantages of buying on credit. Part II focuses on the credit card.

Putting Your Money to Work Consumer and Home Economics Education Programs, Flint Community Schools, Flint, MI 48501. 1976.

This kit includes visual aids, activity sheets, and brochures from businesses and industries. *Putting Your Money to Work* includes topics on: Identifying Savings Dollars; Windfall Income; Where to Put Your Dollar; Investment Shoptalk; Forms of Savings; Insurance as Savings; Types of Investment; Plans to Produce Income; Pensions and Pension Plans; Real Estate; Investment Securities; and Trusts and Wills.

Personal Finance; You and Your Money Butterick Publishing, 161 Avenue of the Americas, New York, NY 10013. 1976.

This kit gives students an excellent grasp of how money works, what taxes are all about, the purpose of insurance and guides them on their consumer rights and responsibilities.

Priorities, Decisions, Security; The Role of Life Insurance in a Young Lifestyle Institute of Life Insurance, Educational Division, 277 Park Avenue, New York, NY 10017. 1971.

The goal of this kit is to clear away myths and misunderstandings of life insurance and to uncover for students the processes of priority planning, decision making, and security seeking that affects their lives at various key points.

A Resource Directory of Selected Consumer Education Materials for Grades K-8 Illinois State Board of Education, Program Planning and Development Section, 100 North First Street, Springfield, IL 62777. 1976. 39pp.

Listings in this directory are to inform teachers of the wide variety of materials which are available to assist them in developing consumer education programs at the elementary level. Included are books, films, filmstrips, multi-media kits, periodicals, resource guides and other sources.

Selected Abstracts and Resources on Consumer Education/-Consumer Economics Iowa Department of Public Instruction, Grimes State Office Building, Des Moines, IA 50319. 1976.

This consumer education/consumer economic packet has been designed for use by teachers, faculties, curriculum teams and supervisory or administrative personnel in planning and implementing their own individual programs. Included also is a limited but carefully selected number of ERIC document abstracts, bibliography or journal articles and a bibliography of resources for developing and implementing programs of consumer education/consumer economics.

Self-Concept Development Through Consumer Education Units Southern Illinois University, Edwardsville, IL 62025. 1977.

A slide program in 3 boxes. 1) Being Good to Yourself: Money Management. 2) Your Power in the Marketplace. 3) Health Help: Yours for the Asking. These are boxed separately and can be checked out individually.

So You Want Wheels Changing Times Education Service, 1729 H Street, N.W., Washington, DC 20006. 1972.

This filmstrip teaches important principles of shopping; the need to weigh wants against needs; the need to measure value and utility; the need for intelligent decision making.

Sylvia Porter's Money Book: How to Earn It, Spend It, Save It, Invest It, Borrow It, and Use It to Better Your Life Avon Publishers of Bard, Camelot, Discus, Equinox and Flare Books. 959 Eighth Avenue, New York, NY 10019. 1974. 1105pp.

The purpose of this book is to prepare its readers to win in every shape of one's economic life. Some information revealed to its readers are the following: how to get the best deals in cash and credit; how to find bargains in fares, charter flights and tours; how to buy a new car virtually wholesale how to get the cheapest housing deals currently available; how the "high ticket" items like food, clothing, health care, vacations, weddings, legal representation, divorces, funerals, college education...can be the areas of greatest savings when one applies her tested budget advice.

Typical Gyps and Frauds Changing Times Education Service, 1729 H Street, N.W., Washington, DC 20006. 1973.

This filmstrip discusses how to recognize and avoid fradulent schemes and deceptive practices and to develop a healthy skepticism toward the marketplace.

Using Credit Wisely: Program Assistant's Guide University of Illinois, Urbana, IL 61820. 1972.

The purpose of the materials in this packet is to help families learn to use credit wisely. At the end of the study on consumer credit, each homemaker and/or member of the homemaker's family should be able to state good reasons for using consumer credit, be able to describe types, sources and costs of credit for different purposes, be informed about current credit regulations and practices, be able to use credit to his or her economic advantage, and be able to weigh alternatives to use credit in various situations.

Using Your Money—Part II Journal Films, Inc., Chicago, IL 60606. 1970.

This filmstrip is an in-depth study of how to use your money wisely, with the opportunity for a great amount of student involvement.

Where Does the Money Go? Steck-Vaughn Company, 807 Brazos, P.O. Box 2028. Austin, TX 78768. 1969. 94pp.

This book was written and designed specifically for beginning adult students who want to improve their basic reading skills as they develop a better understanding of sound practices in money management and consumer buying. It utilizes episodes in the lives of three neighboring families to explore some of the possible money traps into which many families fall. The interesting and factual material leads the student to recognize how many money problems may occur and how they may be solved or avoided through adequate planning.

Your Checking Account National BEW, 6111 Sunrise Drive, Fridley, MN 55432. 1974. 19pp.

This booklet is directed primarily to individual and family use of checking account services. The procedures and forms presented may vary slightly from bank to bank; however, the purposes and uses are the same and one can easily adjust to the operation of one's bank. Some topics discussed are: how to open a checking account; general facts about checking accounts; handling deposits; and keeping accurate records.

Your Illinois Banks Illinois Bankers Association, Chicago, IL 60600. 1976.

This filmstrip provides secondary school students with information about our banking and credit system not available in most classrooms.

The Young Consumer and Panty Hose Beauty Mist, Winston-Salem, NC 27100. 1974.

This filmstrip discusses how pantyhose are made and how to select, wear, and care for them.

You and Your Money Steck-Vaughn Company, 806 Brazos, P.O. Box 2028, Austin, TX 78768. 58pp.

This textbook contains sound advice and practical information about good habits in wise consumer buying and money management. The material is specifically designed and written for beginning adult students who want to develop their skills in reading comprehension and to improve their abilities in written expression. It uses typical situations and fundamental principles to show possible money-management pitfalls into which many adults often fall. By first pointing out some of the common money traps and then providing sound advice for avoiding or overcoming these traps, the material in this work-text provides reliable information about good money management.

ECCMC BIBLIOGRAPHY

COOPERATIVE EDUCATION/ WORK EXPERIENCE PROGRAMS

Agri-business Education; Model Training Plans for Secondary Cooperative Agri-business Education Indiana Curriculum Materials Center, T.A.W. 200, Indiana State University, Terre Haute, IN 47809. 1972. 102pp.

The model training plans contained in this manual have been designed to serve as examples for cooperative teacher-coordinators in the development and utilization of training plans for student-learners enrolled in secondary cooperative vocational education.

Annotated Bibliography of Instructional Materials in Cooperative Vocational Education East Central Curriculum Management Center, Illinois Office of Education, 100 North First Street, E-426, Springfield, IL 62777. 1977. 141pp.

This annotated bibliography has been prepared to assist teacher-coordinators in cooperative vocational education to be more efficient and effective in selecting, utilizing and recommending the purchase of vocational or instructional materials. Materials were secured from over 700 publishers of various types of instructional materials. These materials were annotated, evaluated, and actually field tested.

C.I.E. Administrative Handbook Vocational-Technical Curriculum Laboratory, Rutgers-The State University, Building 4103-Kilmer Campus, New Brunswick, NJ 08093. April 1978. 115pp.

This manual is designed for coordinators of cooperative industrial classes. The topics covered in this manual are as follows: getting started, objectives, guidelines, legal responsibilities, selection of training establishments, related classes, supervision of students, evaluation, VICA, advisory committees, and public relations.

C.I.E. Teacher-Coordinator Training Plans Vocational-Technical Curriculum Laboratory, Rutgers-The State University, Building 4103-Kilmer Campus, New Brunswick, NJ 08093. 1978. 121pp.

This training plan manual was developed to assist the coordinator in determining the students' performance both in school and on the job in order that the student learner may reach his or her occupational goal.

Career Core Curriculum: A Cooperative Work-Experience Program Series Gregg Division/McGraw-Hill Book Company, New York, NY 10020. 1977. Seven booklets in this series.

This series is a multidimensional program to facilitate students' planning, selection, and adjustment to a career. The program uses a variety of th most effective educational techniques to teach basic skills and enhance student's understanding of basic concepts that relate to occupational situations. It is a program adaptable to a wide range of learning situations including traditional classroom or individualized instruction and on-the-job settings. Career centers and guidance offices are appropriate for display and utilization of both the print and audiovisual components. Through an infusion approach, the core competencies can be integrated into academic or vocational subject areas.

A Competency-Based Coordinator's Manual Minnesota Instructional Materials Center (MIMC), 3554 White Bear Avenue, White Bear Lake, MN 55110. 1974. 42pp.

The tasks listed in this document are grouped into eight categories: Program Planning, Development, and Evaluation; Guidance; Management; Professional Role and Development; Instruction; Student Vocational Organizations; Coordination; and School-Community Relations. This publication attempts to identify essential tasks, indicators, and timelines for the duties of a program coordinator.

Cooperative Diversified Occupations Related Theory Curriculum Resource Guide Vocational Education Information Network, Millersville State College, Millersville, PA 17551. 1975.

The purpose of this guide is to provide instructors with current, reliable sources of information. It is structured according to topics, each with a stated objective and identified competencies. The resources are coded by the type of media such as cassettes, films, etc.

Cooperative Education Curriculum Guide Western Curriculum Coordination Center, University of Hawaii, Honolulu, HI 96822. 1977. 44pp.

This guide was developed for a one year, three credit, elective vocational subject for high school seniors. Students register for four class periods of cooperative education per school day. The teacher-coordinator meets with the students for the full four class periods and guides them through an organized occupational exploration and career planning program. Students attend only one formal class each day for the remainder of the school year. In this related training, topics such as finding, getting and working on the job, history and use of money, types of insurance, job-related information, advancing on the job and related information, and consideration for changing one's occupation are presented.

Cooperative Education: Vocational-Occupational-Career Ronald W. Stadt and Bill G. Gooch, Bobbs-Merrill Company, Inc., 4300 West 62nd Street, Indianapolis, IN 46206. 1977. 384pp.

This book focuses on less than baccalaureate, career-oriented programs. Every possible attempt has been made by the authors to assure applicability to cooperative programs, regardless of occupational specialities, characteristics of clientele or sponsoring agency. It is intended to be applicable to public or private, post-secondary programs and to alternative programs, such as Comprehensive Employment and Training Act programs.

Cooperative Occupational Home Economics: A Handbook for Nebraska Teacher Coordinators Vocational-Technical Education, Teachers College, University of Nebraska, Lincoln, NB 68503. January 1976. 75pp.

The purpose of this handbook is to provide assistance to school personnel in the development and operation of a quality cooperative occupational home economics program. The handbook can serve as a guide to the teacher-coordinator as a new occupational home economics program is developed or as a resource for strenghtening an existing program.

Cooperative Work Experience: An Annotated Resource Guide Department of Industrial Education, University of Maryland, College Park, MD 20740. 1975. 214 pp.

This guide is an extensive annotated listing of resource materials for secondary and post-secondary cooperative work experience programs. The first section of the guide is devoted to resources for teachers; the second section is devoted to resources for students; and general sources of information and instructional materials.

Cooperative Work Experience: An Annotated Resource Guide for Teachers of the Handicapped Maryland State Department of Education, P.O. Box 8717, BWI Airport, Baltimore, MD 21240. 1976. 146pp.

This resource guide lists materials which may be useful to the teacher, administrator, or program developer of cooperative work experience for the handicapped.

Cooperative Work Experience Learning Activity Packet: Series on Job Entry and Adjustment Gerald Day, Vocational Education, State Department of Education, P.O. Box 8717, BWI Airport, Baltimore, MD 21240. 1978.

The eleven self-contained learning packages (LAP) include objectives, informational sections, learning activities, self checks, alternative learning activities, and a final test. Designed to be used in cooperative work experience programs, the LAP's cover: agencies and sources for finding a job; applications and resumes; the job interview; good grooming; your paycheck; social security; getting a raise; to quit or not to quit; unemployment insurance, savings accounts and checking accounts.

Creative Approaches To Teaching An Industrial Cooperative Training Program Virginia Polytechnic Institute and State University, Blacksburg, VA 24061. 1977. 118pp.

This publication was developed as an aid for Industrial Cooperative Training Coordinators in the teaching of general related topics for 11th and 12th grade cooperative programs. Major emphasis is on integrated types of materials which can be used to stimulate the type of students who have difficulty in adjusting to traditional teaching materials and methodology. All of the educational games, simulations, and role-playing instructional materials contained herein have been field tested in Virginia Industrial Cooperative Training Programs.

The Distinguished Cooperating Teachers Program Chicago State University, 95 & King Drive, Chicago, IL 60628. 1975.

This slide set discusses a program through which cooperating teachers and student teachers develop a better understanding of their common goals.

The Handbook for Cooperative Vocational Education in Illinois East Central Curriculum Management Center, Illinois State Board of Education, 100 North First Street, E-426, Springfield, IL 62777. 1977. 165pp.

This handbook has been structured around the most commonly asked questions regarding cooperative vocational education. The topics included are as follows: overview of cooperative vocational education; teacher-coordinator tasks and recommended timetable; determining need for cooperative vocational education; planning for cooperative vocational education; the training station; the in-school instruction plan; public relations; and staff, facilities, and evaluation.

Handbook for Home Economics Cooperative Education Teacher-Coordinators in Texas Texas Tech University, Home Economics Instructional Materials Center, P.O. Box 4067, Lubbock, TX 79409. 1975. 100pp.

This book describes gainful employment programs in Texas; teacher qualifications and duties; procedures in determining need for a program; advisory committees; classroom facilities, equipment and supplies; student selection; selection of training stations; placement of student; reports; training plans; related class instruction; instructional materials; coordination of activities; end-of-year activities; publicity; and FHA.

Health Occupations Education; Model Training Plans for Secondary Cooperative Health Occupations Education Indiana Curriculum Materials Center, T.A.W. 200, Indiana State University, Terre Haute, Indiana 47809. 1972. 126 pp.

The model training plans contained in this manual have been designed to serve as examples for cooperative teacher-coordinators in the development and utilization of training plans for student-learners enrolled in secondary cooperative vocational education.

Industrial Work Experience I Vocational Industrial Education, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061. June 1976. 516pp. Single copies available from Harry Smith, Public Information and Publications, State Department of Education, Richmond, VA 23216.

The purpose of this guide is to present basic sample instructional materials for the Industrial Work Experience Program. Suggested sample lessons and handouts are included. Topics covered are: Introduction to the IWE Program; Pre-Employment Information; Employer-Employee Relations; Learning Can Be Easy; On-The-Job Communication; Income Tax; Basic Industrial Economics; Money Management and Banking; Employee Legal Rights and Responsibilities; and Job Safety.

Industrial Work Experience II Virginia Polytechnic Institute and State University, Blacksburg, VA 24061. 1977. 362pp.

The primary purpose of this guide is to present basic sample instructional materials for the industrial work experience program. The instructional material used in this curriculum guide has been used successfully by coordinators in the Industrial Cooperative Training Program. This guide was developed using the Industrial Cooperative Training II Virginia Curriculum Guide as a reference.

Interdisciplinary Cooperative Education Program Curriculum Guide Public Schools of the District of Columbia, Washington, DC 20001. 1976. 451pp.

This curriculum guide for interdisciplinary cooperative work experience programs has been developed in the form of episodes. Episodes are teacher-constructed plans for learning experiences based on performance objectives.

Multi-Occupations Curriculum Guides College of Education, University of Idaho, Moscow, ID 83843. 1976. 105pp.

Multi-occupations is a type of high school cooperative vocational education program that encompasses all of the areas of vocational education. Its primary purpose is to offer high school seniors the opportunity to develop the knowledges, skills, and attitudes necessary to enter into and advance in an occupation. The intent of the guide is to assist teachers in planning cooperative experiences for students who would not otherwise have this opportunity.

A Resource Guide for Cooperative Work Experience Programs 1975 William J. Nixon, Jr., Rhode Island Department of Education, 22 Hayes Street, Providence, RI 02908. 1975. 100pp.

This resource guide is designed to provide information about work experience programs in Rhode Island and other states. The first section is a model of specific goals, objectives, and functions to help make work experience programs accessible and responsive to handicapped, disadvantaged, and minority students. The second section is a matrix identifying which work experience programs meet the specific objectives and functions identified in the first section. The third section contains the abstracts of the work experience programs in Rhode Island; the fourth section contains the abstracts of the work experience programs in the other states.

Special Program Cooperative Occupational Education Guide Illinois State Board of Education, Department of Adult, Vocational and Technical Education, 100 North First Street, E-426, Springfield, IL 62777. 1976.

This guide is useful to teachers serving students in cooperative education classes, including Cooperative Work Training and Early School Leavers. The purpose of this guide is to involve teachers and students in the exploratory process of career development, as well as with traditional information about related occupations.

Training Plans Minnesota Instructional Materials Center, 3554 White Bear Avenue, White Bear Lake, MN 55110. 1974. 44pp.

This is a guide for the establishment of training plans for cooperative vocational education programs. It provides the basic framework for developing realistic training plans.

Vocational Education in the Real World Setting Bureau of Vocational Education, Department of Education, Frankfort, KY 40601. 1975. 39pp.

Annotated bibliography of materials pertaining to apprenticeship, work experiences, cooperative education, and internships.

WECEP Guide East Central Curriculum Management Center, Illinois State Board of Education, 100 North First Street, E-426, Springfield, IL 62777. 1978. 393pp.

This guide has been prepared for personnel who are responsible for planning and conducting a Work Experience and Career Exploration Program, a special cooperative education for fourteen- and fifteen-year-old special needs students. Included in the guide are resource ideas and student worksheets.

We've Tried It! Illinois Cooperative Vocational Education Coordinators Association, LaSalle-Peru, IL 61301. 1976.

The material presented in this manual is a compilation of suggestions and ideas that have been used by coordinators in their various cooperative classes, such as: student applications and record forms; agreements, contracts and training plans; student employer—coordinator; report and evaluation forms; class activities, resources, promotional suggestions, and booklets.

ECCMC BIBLIOGRAPHY

MARKETING AND DISTRIBUTION

Administrative Handbook for Distributive Education The University of the State of New York, The State Education Department, Bureau of Distributive Education, Albany, NY 12230. 1977. 20pp.

This handbook has been designed to assist the school administrator in planning and developing a distributive education program. Attention has been given to the total program including its design and description, the cooperative work experience component, youth leadership club activities, school store operation, advisory committee, and post-secondary education. It should be of value to the principal, department chairperson, guidance personnel, and distributive education teachers in their specific program relationships.

Advertising Services Module: A Second Level Option for Distribution And Marketing The University of the State of New York, Bureau of Occupational and Career Curriculum Albany, NY 12234. 1976. 38pp.

The principles and practices outlined in this guide are particularly important fcr persons who wish to enter the field of advertising services or for individuals who desire to upgrade their present skills in this content area. It may also be used as part of the occupational preparation within professional, industrial, or commercial fields.

Anatomy of a Sale Sears Consumer Information Services, Chicago, IL 60607. 1972.

This filmstrip examines the interacting structures of the buying/selling situation and the roles of buyer and seller—how they operate, how they relate, how they can complement each other, and how they can come into conflict.

The Art of Selling Transparencies Instructor's Guide DCA Educational Products, 424 Valley Road, Warrington, PA 18976.

Describes the transparencies in this series. (The transparencies are not available on loan.)

A Bibliography of Free Loan Materials for Distributive Education Wisconsin Vocational Studies Center, University of Wisconsin, Madison, WI 53706. 1976. 15pp.

Materials in this bibliography have been identified from throughout the United States and include materials collected as part of the ongoing operation of the Wisconsin Vocational Studies Center.

Potential uses of the materials listed include workshops, student and teacher references, identification of curriculum aids, undergraduate and graduate student references, administrative planning, identification of materials for purchase, and other classroom or instructional uses.

Competency-based Curriculum activities and Workshop for Distributive Education University of North Dakota, Grand Forks, ND 58201. 1977. Final Report.

The North Dakota D.E. programs are currently implementing the competency-based curriculum developed through the Interstate Distributive Education Curriculum Consortium. The curriculum consists of ten areas: (1) communication, (2) management, (3) operations, (4) human relations, (5) selling, (6) display, (7) advertising, (8) math, (9) merchandising, and (10) product service technology. The ten areas relate directly to the U.S. Office of Education D.E. Codes for Distributive Education and specific competencies for each area.

Developing and Testing Simulated Occupational Experiences for Distributive Education Students in Rural Communities: Volume I., Rationale; Volume II., Curriculum Materials; and Volume III., Training Plans Lucy C. Crawford, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061. February 1976. Volume I-122pp., Volume II-290pp., and Volume III-97pp.

Volume I includes the goals and objectives of the project, procedures followed, curriculum for the simulated project, third-party evaluation summary, implications, and recommendations. This volume also includes a selected bibliography, sample correspondence, sample forms, and a schedule of career progressions in six categories of business.

Volume II includes curriculum guides in the form of Competency Area Packets: Advertising, Communications, Display, Human Relations, Mathematics, Merchandising, Operations and Management, Product and Service Technology, and Selling. A suggested list of instructional materials is also included in this volume.

Volume III includes prototype training plan for 15 entry level and 15 career level jobs.

The Display Specialist Gregg Division of McGraw-Hill Book Company, New York, NY 10036. 1976. 106pp.

This text-workbook is designed to introduce students to the work of the display specialist and to help prepare them for employment.

Distributive Education II Oklahoma State Board of Vocational and Technical Education, Curriculum and Instructional Materials Center, Stillwater, OK 74074. 1976.

The purpose of this course of study is to assist the DE teachers and coordinators in improving instruction in Distributive Education in Oklahoma. Step-by-step instructions are outlined for the use of this publication. The content of the text is divided into the following sections: orientation, survival skills, human relations, selling, display, advertising, merchandising, store organization, and economics.

Distributive Education Instructional Materials: Abstracts of Instructional and Research Materials in Vocational and Technical Education 1972-1975 The Center for Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, OH 43210. 1976. 263pp.

This publication is a compilation of abstracts of distributive education materials which have appeared in AIM/ARM since 1972.

The Entrepreneurial Function Prentice Hall Inc., Englewood Cliffs, NJ 07632. 1977. 484pp.

This book uses short sections of the test and related cases to explain and illustrate the functions to the entrepreneur and the particular characteristics of small business management.

Exploration of Marketing Services Careers Florida Department of Education, Tallahassee, FL 32301. 1974. 436pp.

This text is a distributive education offering which is designed as a semester unit of instruction at the middle or junior high school level. It presents the second phase of a comprehensive pre-vocational career program. It is one of the elective courses in distributive education designed as a follow-up to *Orientation to Marketing Careers.* It provides the student with an opportunity to explore, in greater depth, the varied career opportunities available within marketing service industries.

Exploration of Retailing Careers Florida State Department of Education, Tallahassee, FL 32304. 1974. 404pp.

This guide has been developed around the six major departments found in most retailing businesses which include: buying, shipping and receiving, sales promotion, personal selling, customer services, and credit and control. Each of these areas is handled in a separate unit.

This curriculum guide is dividied into two major sections: The teacher's guide section and the student materials section. The teacher's guide section is composed of eight units. The first seven units cover the content of the course. The last unit called Special Activities contains materials which may be used throughout the course.

Exploring Wholesaling and Retailing Careers South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1976. 154pp.

This text-workbook introduces the student to various careers in wholesaling and retailing. It is student activity-oriented and requires no special equipment or other instructional material to complete.

Exploration of Wholesaling Careers Florida State Department of Education, Tallahasee, FL 32300. 1974. 311pp.

This publication is a distributive education offering which is designed as a semester unit of instruction at the middle or junior high school level. The course is developed around five major working areas found in most wholesaling businesses. These include: buying, selling, warehousing, transportation, and finance. Each of these areas is handled in separate units. The curriculum guide is divided into two major sections: the teacher's guide section and the student materials section. The teacher's guide section is composed of eight units. The first seven cover the content of the course. The eighth unit called Special Activities contains materials which may be used throughout the course.

Fashion Merchandising Gregg Division of McGraw-Hill Book Company, New York, NY 10036. 1976. 421pp.

This text is intended to be used by college-level students in preparation for entry-level jobs in the fashion industry. Topics covered include the basic principles of fashion such as how fashions begin, move, and disseminate and how fashions may be predicted; the history and development, methods of operation, merchandising activities, and current industry trends within the fashion industry; and a description of planning and control procedures used in retail merchandising of fashion goods.

Fashion Merchandising Module - An Advanced Level Option for Distribution and Marketing The University of the State of New York, The State Education Department, Albany, NY 12234. 1977. 87pp.

The content of this curriculum guide is designed to assist in the preparation of high school graduates for entry-level positions in fashion-related jobs. The content builds on a base of elementary understandings and permits the student to apply his or her knowledge and skills at each step of the educational process. Throughout the various units, provision is made for evaluating student progress toward specific performance goals.

Fundamentals of Real Estate Prentice-Hall, Inc., Englwood Cliffs, NJ 97632. 1977. 730pp.

This book contains the basic knowledge necessary to successfully enter and complete a real estate transaction and to successfully take and pass a state licensing examination. Techniques representing many years of professional experience are included to help the newly licensed beginner get established in the real estate business. Mastery of the contents of this book will adequately prepare the reader to take specialized courses in real estate appraisal, brokerage, finance, investments, and law.

Growth Opportunity Analysis Reston Publishing Company, Inc., Reston, VA 22090. 1976. 255pp.

This book presents perspective and tools to assist enterprises in realizing consistent and continuous sales volume growth by actively and systematically planning that growth. Included is a new tool—market structure profile analysis—to help the firm analyze the whole range of relevant growth opportunities and to select and design an appropriate mix of growth strategies.

Guidelines for Developing in-School Stores for Secondary Distributive Education Programs Indiana Department of Public Instruction, 17 West Market Street, Indianapolis, IN 46202. 1976. 20pp.

The purpose of this guide is to help teachers provide students with an opportunity to experience and understand total store operation rather than to just perform limited, piecemeal functions like punching a cash register, handling stock, or housekeeping duties without understanding the relevance these functions have in the total store operation.

Human Relations in Business South-Western Publishing Company, Cincinnati, OH 45227. 1977. 188pp.

This text-workbook deals in the attitudinal realm of human relations. It leads students through a well-organized series of thoughts and activities that will help them develop a positive attitude towards the need to understand themselves; to relate well with co-workers, employers and customers; and to communicate effectively. It contains 6 chapters and 39 class activities that require approximately 30 class hours to complete. The text may be used as a tool in any vocationally oriented program that prepares students for the world of work.

Human Relations in Marketing—A Unit of Study in the Virginia Distributive Education Curriculum Distributive Education Service, State Department of Education, Richmond, VA 23200. 1971. 138pp.

The content of this unit focuses on self-improvement in human relations and on preventing and solving problems involving associations with co-workers, supervisors, and customers. Case problems and role playing are the primary instructional methods employed. Also, a variety of vocational learning experiences in the form of projects and participation activities are provided. This unit is designed for the studies in marketing curriculum (first year cooperative program) in order to develop social competencies in human relations needed by distributive employees.

Introduction to Modern Business Prentice-Hall, Inc., Englewood Cliffs, NJ 07631. 1977. 656pp.

This book, written as an introductory text, is an in-depth study of many phases of business. It may be used not only by those who plan to major in business administration but also by those in other fields who want to take only one course in business.

The twenty-three chapters are grouped into six parts based primarily on functional areas of business and on environmental issues and problems—business and its economic and social environment; organization and management of the business enterprise; occupational aspects of the business enterprise; marketing functions; management controls and decision making; and business and financial management.

Know Your Merchandise: For Retailers and Consumers Gregg and Community College Division of McGraw-Hill Book Company, New York, NY 10036. 1975. 566pp.

This book is a basic text for distributive education and home economic courses in merchandise information. It can also be used as a reference text for consumer education courses and as a reference for retailers and consumers. This publication discusses the composition of various products and the basic facts about marketing as they relate to the customer and the salesperson. Topics included are textile materials, non-textile materials, apparel and accessories, home furnishings, foods and food products, home improvement products, transportation products, and amusement and recreation products.

Marketing Prentice Hall, Inc., Englewood Cliffs, NJ 07631. 1977. 648pp.

This textbook integrates contemporary economic, political, and social themes of marketing with the desirable fundamentals of marketing. Stress is given to practical applications of the marketing concepts and techniques that are discussed. Numerous real-life examples of marketing practices are drawn from a wide variety of situations. The book is divided into six parts, as follows: overview, analyzing the marketplace, buying behavior, elements of marketing strategy, carrying out marketing strategy, and broadened marketing perspectives.

Marketing and Distribution: Careers for Bilinguals/Carreras Para Bilingues Regents Publishing Co., Inc., New York, NY. 1976.

Familiarizes students with available job and career opportunities in marketing and distribution and lets them see the ways in which bilingualism can work for them. Explores various careers in sales and distribution.

Marketing and Distributive Education Curriculum Planning Guide, Wholesaling, Curriculum Guide, General Marketing, General Retail Merchandising, Food Marketing Illinois State Board of Education, Adult, Vocational and Technical Education, 100 North First Street, E-426, Springfield, IL 62777. 1978. For sale from the Curriculum Publications Clearninghouse, Western Illinois University, 47 Horrabin Hall, Macomb, IL 61455.

This program has been designed to provide the curriculum coordinator with the basis for planning a comprehensive program in the career field of marketing and to allow marketing and distributive education teacher-coordinators maximum flexibility. A variety of suggested learning activities are provided to enable teachers to determine which one would best serve their teaching method.

Measuring Student Achievement in Visual Merchandising Through Display The University of the State of New York, Bureau of Distributive Education, Albany, NY 12234. 44pp.

This collection of sample test items is intended as a resource for teachers of distributive education programs. The main emphasis is on the contents of the advertising occupations cluster. These items illustrate curriculum materials that have been published in the "Visual Merchandising Through Display" syllabus which is an advanced level module in the series being developed as options in the second year of distribution and marketing.

Merchandising Mathematics—A Unit of Study in the Virginia Distributive Education Curriculum Distributive Education Service, State Department of Education, Richmond, VA 23216. 1969. 237pp.

The purpose of this unit may be summarized as follows: Upon the completion of the unit, the student will be able to relate uses of mathematics in merchandising to uses at places of employment, figure shipping, discount, and dating terms; recognize the advantages of obtaining the best terms possible when buying; realize the importance of effective inventory and stock control procedures; be familiar with pricing policies and practices; be aware of current merchandising trends and be eager to spot developing trends; and be aware of the income statement and the balance sheet as important financial reports.

Montana Curriculum Guidelines for Distributive Education Office of Superintendent of Public Instruction, State Capitol, Helena, MT 59601. 1976. 204pp.

These guidelines are designed to aid distributive education teachers in building curriculum based on the competencies required for successful employment in marketing occupations in Montana.

Owning and Operating a Small Business: Strategies for Teaching Small Business Ownership and Management Department of Adult, Vocational and Technical Education, Illinois State Board of Education, 100 North First Street, Springfield, IL 62777. 1976. 148pp. Available for sale from the Curriculum Publications Clearinghouse, Western Illinois University, 47 Horrabin Hall, Macomb, IL 61455.

The objective of this guide is to aid the teacher in providing instruction in small business ownership and management to students who desire the knowledge and skills necessary to start a small business and nurture its growth. While the content of the guide is directly related to the teaching of management information and skills, a unique aspect of the guide is the design of the activities suggested in each unit.

Post-Secondary Curriculum Guide for Distributive Education Career and Adult Education, State Department of Education, Jefferson City, MO 65101. 1974. 92pp.

This publication is committed to the improvement of marketing and distribution in our economy. It is designed to prepare persons for gainful employment and for advancement in a mid-management, supervisory, or specialist occupation. The topics covered are steps in planning a post-secondary program, facilities, and finance, student personnel, evaluation and advisory committees, sample curriculums and follow-up materials.

Practical Real Estate for the High School Student (#0005) New Jersey Curriculum Laboratory, Rutgers—The State

University, Building 4103—Kilmer Campus, New Brunswick, NJ 08903. 1975. 83pp. (CE-286)

Purpose of the program guide is to present basic real estate information and to give students an opportunity to gather information on shelter-related careers. Divided into content and activities areas including such topics as budgets, renting and house buying, the program is designed for use as a one-half year course or a mini-course.

Promotion: Advertising, Publicity, Personal Selling, Sales Promotion Prentice-Hall, Inc., Englewood Cliffs, NJ 07631. 1977. 394pp.

This book is a quick reference guide of every aspect needed to plan successful promotion in today's marketplace. Complete coverage of the basics of advertising, personal selling, public relations, publicity, and sales promotion is given. It explains new concepts, and offers many case studies and real-life examples of the points discussed.

The book serves as a practical introduction for college students, professional people not directly working in marketing or promotion, and persons in general management training programs.

Research for Marketing Decisions Prentice-Hall, Inc., Englewood Cliffs, NJ 07631. 1978. 673pp.

This book presents the latest developments in research techniques as well as a comprehensive and practical discussion of how to design, conduct, and analyze the results of research for marketing decision making.

Retailing Prentice Hall, Inc., Englewood Cliffs, NJ 07631. 1977. 400pp.

This book on retailing was written to introduce students to the field of retailing and provide the technical and theoretical knowledge necessary for retail middle management employment.

This publication provides the students with new materials that is vital to the success of the contemporary retailer. Complete chapters on store security and collections have been added to underscore their importance to this field.

Retailing Reston Publishing Company, Inc., Reston, VA 22090. 1977. 405pp.

This text contains fifteen chapters, designed to cover the vast subject of retailing in sufficient breadth and depth to meet the requirements of a comprehensive retailing course. Each one is designed to stand alone as well as reflect the integrated nature of related retailing activities. Both the structure and content allow for easy adaptability to academic calendars based on semesters, trimesters, or quarters. Included in this text are chapters on objectives, retailing services, and starting up a retail business. At the end of each chapter there are review questions to test comprehension.

Small Business Information Sources (An Annotated Bibliography) National Council for Small Business Management Development, 929 North Sixth Street, Milwaukee, WI 53203. 1976. 318pp.

This book is a reference document for anyone interested in starting, managing, advising, or conducting. Owners, managers, consultants, bankers, and others should find this book a valuable source of information. This book is divided into sections—books on business practice, classroom textbooks, periodicals and booklets, research studies, government publications, minority small business, conference proceedings, and international small business.

Specialized Small Business Management for Trade, Industrial, and Technical Areas Minnesota Instructional Materials Center (MIMC), 3300 Century Avenue North, White Bear Lake, MN 55110.

This four-part document is now available on the subject area of Small Business Management. Part 1 is designed as a 12-week course in human relations and Small Business Management. Part II is a 12-week course in Business Law, Salesmanship, Oral and Written Communications, and Marketing. The third section covers Business Mathematics, Record Keeping, Practical Bookkeeping, and Applying for a Job. The last section deals entirely with Supervision.

Supermarket Merchandising and Management Prentice-Hall, Inc., Englewood Cliffs, NJ 07631. 1977. 372pp.

This book has been designed to provide specialized classroom instruction for those students either working in, or interested in working in, supermarkets. Specific course objectives include: acquainting students with the nature of the retail food industry, preparing qualified students for initial employment and advancement, and aiding managerial personnel in improving the techniques of modern supermarket management.

Wholesale Distribution Module: An Advanced Level Option for Distribution and Marketing The University of the State of New York, The State Education Department, Albany, NY 12234. 1977. 62pp.

Wholesale distribution is another module in the series being developed as advanced options in a secondary education marketing and distribution sequence or as continuing education offerings. The content of this module is designed to assist in the preparation of high school students for entry-level positions in wholesale distribution. Students' performance objectives, which are correlated horizontally with the related content topics and suggested activities, are specific enough to be used in evaluating individual progress.

The World of Retailing New Jersey Vocational-Technical Curriculum Laboratory, Rutgers-The State University, Building 4103—Kilmer Campus, New Brunswick, NJ 08903. 1975. 112pp. (CE-296)

Focused at the junior high school level, this publication provides introductory knowledge of the world of retailing through the areas of consumer knowledge, selling, and establishing a school store. Multi-media references are given along with sample worksheets and forms.

Your Career in Marketing Gregg Division of McGraw-Hill Book Company, New York, NY 10036. 1976. 472pp.

This textbook is designed to introduce students to the field of marketing and to the broad range of career opportunities covered in the text are as follows: marketing:—what it's all about, you and a marketing career, preparing for a career in marketing, careers in marketing goods, careers in marketing services, and starting your education and experience.

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METRIC

All You Will Need To Know About Metric U.S. Department of Commerce, National Bureau of Standards, Washington, DC. 1974.

This poster discusses the basic metric units which we will all need to know for use in everyday life.

At Home with Metric Measuring, Butterick Publishing, New York, NY 10013. 1974.

This kit provides both student and teacher with a basic understanding and a clear concept of the metric system and how it applies to day-to-day activities.

The Beef Cattle Industry and the Metric System Wye Plantation, Queenstown, MD. 1973. 35pp.

The purpose of this booklet is to describe some of the ways that changing the measurement system will affect the beef cattle industry. Contents include: advantages of the metric system to the beef cattle industry; what changes to expect; how to convert a number; performance testing and the metric system; carcass data and the metric system; four steps to metric conversion; equivalent tables and bibliographies.

A Bibliography of Metric Standards American National Standards Institute, Incorporated, 1430 Broadway, New York, NY 10018. 1975. 24pp.

This bibliography is designed to provide guidance on the availability of metric standards which should be useful as introductory materials for metrication. All standards listed in the bibliography are available from the American National Standards Institute.

Hometrics Kit Enrich, Inc., Sunnyvale, CA 94086. 1977.

Presents a practical approach to metrics specifically for the home economics class and adult education.

How To Teach Metric Now Worchester Public Schools, Worchester, MA 01600. 1973. 74pp.

This curriculum guide for grades K-6 will assist pupils, teacher, and parents in learning about the "new" measuring system and effect a smoother transfer from the present system of weights and measures. "How long is it?", "How much does it weigh?" "How fast is it going?", What is its volume?" are common questions in the school environment.

Contents include: history and related changes; objectives and activities for primary grades (K-3); objectives and activities for intermediate grades (4-6); junior and senior high, and a group of charts, tables, diagrams and related information.

Implementing Metric Measurement Units in Career Education Engineering Technology, Incorporated. 1975.

The purpose of this guide is to provide occupational educators with the tools they require to effectively introduce metric measurements in their curriculum. It includes information on the history of the metric system, the modern metric system, metric measurements examples, and metric units in occupational education.

The International (SI) Metric System and How It Works Polymetric Services Inc., Tarzana, CA 91356. 1975. 287pp.

This book is designed to help teachers learn about the SI system, to give some help in teaching it and to establish a truly international system of measurements with common symbols and spelling.

Learning Metrics By Doing Metrics Willow House Publishers, 111 North San Joaquin Street, Stockton, CA 95202. 1977.

This series consists of the following:

Book 1 Measuring Metric (in color)	K, 1, 2, 3	32 pages
Book 2 Measuring Metric (in color)	4, 5, 6	32 pages
Book 3 Metric Fundamentals	7, 8, 9, 10	32 pages
Book 4 Metrics for Home Use	Homemaking	32 pages
Book 5 Everyday Metrics	11, 12, 13, 14	32 pages
Book 6 Metric Workshop for Teachers	Teacher Training	32 pages
Book 7 Practical Metrics	Trade & Industry	32 pages
Book 8 Technical SI Metrics	Technology, Science	48 pages

All books are 8½ x 11, paperbound. Answers included in test material.

Measuring with Meters Perennial Education, Inc., 1825 Willow Road, P.O. Box 226, Northfield, IL 60093.

This film introduces upper elementary grade, including junior high students to the metric system by visualization, demonstration, and active involvement. The objectives are for students to think metric and to use metric.

Merry Metric Creative Teaching Associates, Fresno, CA 93700. 1974.

This game reinforces the meanings of the prefixes kilo, hecto, deka, deci, centi, and milli, and their relationship to meters, liters and grams, Grades 5-12.

The Metric Book of Amusing Things To Do Barron's Educational Series, Inc., 113 Crossways Park Drive, Woodbury, NY 11797. 1974. 96pp.

This paperback book contains interesting activities which aid in learning the metric system of measurement. The activities are accompanied by animated cartoons starring the "metric mice."

Metric Curriculum for Teachers/Educators Objectives, Purposes, and Use of Metrication Project Illinois State Board of Education, 100 North First Street, Springfield, IL 62777. 1975. Available on loan from the East Central Curriculum Management Center. Transparency Masters included.

The purpose of this project is to provide curriculum development specialists (CDS) with a step-by-step approach to conducting inservice programs on Metrication. Emphasis is on *workshop* activities, consistent with the notion that measurement is best "learned by doing."

Metric Derby Creative Teaching Associates, Fresno, CA 93700. 1974.

Provides a "hands on" experience in metric measure. Variations in games provide drill and practice in multiplication, decimals, and metric prefixes.

Metric Dominoes Creative Teaching Associates, Fresno, CA 93700. 1976.

This game aids students in mastering equivalence of metric units and measurement of length of line segments and perimeters.

Metric Education—An Annotated Bibliography for Vocational, Technical, and Adult Education The Center for Vocational Education, The Ohio State University, Columbus, OH 43210. 1974. 149pp.

This bibliography is designed to assist vocational, technical and adult education teachers and others in locating available material on metric education. Its resources will help the user become familiar with current metric activity and gain some understanding of its impact on vocational, technical and adult education curricula.

Metric Education—A Position Paper for Vocational, Technical and Adult Education The Center for Vocational Education, Ohio State University, Columbus, OH 43210. 1975. 46pp.

This paper is addressed to teachers, curriculum developers and administrators in vocational, technical and adult education, all of whom will soon be involved in the implementation of metric instruction. It is intended to make educators aware of the kinds of changes they may anticipate in their program areas, and to prepare them to meet the challenge in constructive and positive ways.

Metric Implementation Guide: Implementing the Metric System in Agricultural Occupations Illinois State Board of Education, Department of Adult, Vocational and Technical Eucation, 100 North First Street, Springfield, IL 62777. 1977. 65pp.

This guide is addressed to teachers of agricultural occupational programs. It includes information on agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture and turf management. Its aim is to provide appropriate information, viewpoints, and attitudes regarding the metric system, and to make suggestions regarding the presentation of the material in the classroom.

Metric Implementation Guide: Implementing the Metric System in Business Occupations Illinois State Board of Education, Department of Adult, Vocational and Technical Education, 100 North First Street, Springfield, IL 62777. 1977. 52pp.

This guide is addressed to teachers of business occupational programs including distributive marketing, secretarial, keypunch operators, and clerical. Some of the activities and exercises included are of a general nature and some are related to specific occupations. It is intended that the teacher will select from the items suggested those which are appropriate to the group of students involved. What is important is that students have the opportunity to actively estimate and measure many objectives with which they have frequent contact and that they be encouraged to "think metric."

Metric Implementation Guide: Implementating the Metric System in Health Occupations Illinois State Board of Education, Department of Adult, Vocational and Technical Education, 100 North First Street, Springfield, IL 62777. 1977. 56pp.

This guide is addressed to teachers in health-related occupational programs. It includes information on dental assisting, medical laboratory assisting, practical nursing and pharmacy aide. Some of the activities and exercises included are of a general nature and some are related to specific occupations. It is intended that the teacher will select from items suggested, those which are appropriate to the group of students involved.

Metric Implementation Guide: Implementing the Metric System in Personal and Public Service Occupations Illinois State Board of Education, Department of Adult, Vocational and Technical Education, 100 North First Street, Springfield, IL 62777. 1977. 61pp.

This guide is addressed to teachers of personal and public service occupational programs including child care; industrial sewing; food management, production and services; interior decorating; cosmetology; and environmental control. Some of the activities and exercises included are of a general nature and some are related to specific occupations. It is intended that the teacher will select from the items suggested those which are appropriate to the group of students involved and it is expected that those suggested will stimulate the creation of additional or more appropriate items by the teacher.

Metric Is Here! G. P. Putnam's Sons, 200 Madison Avenue, New York, NY 10016. 1973. 94pp.

Presented in this text are topics on the use of metrics in sports, in the home, at the drugstore, in science, land surface measurements, maps, charts and signposts. It also includes tables of equivalents and an index.

Metric Math: The Modernized Metric System (SI) Brooks Cole Publishing Company, Monterey, CA 93940. 1974. 85pp.

This book is for those who want to understand the metric system and who want to be able to use it with confidence. Its purpose is to present material and to suggest additional experiences that will help the reader in acquiring the skills and understandings, which are important in the use of the modernized metric.

Metric Power: Why and How We Are Going Metric Thomas Nelson, Inc., Nashville, TN 10017. 1974. 144pp.

This book offers the reader a history of the way weights and measures developed through the centuries. It shows the advantages of using the metric system. It discusses how metrication will affect both business and individuals, why our railroads and our property deeds will continue to be nonmetric, and how the change will affect cookbooks and cake pans.

Metrics: A Resource Guide for Home Economics Bureau of Vocational, Technical and Continuing Education, Pennsylvania Department of Education, Harrisburg, PA 15701. 1976. 213pp.

This guide is a compilation of ideas to be used as a resource for teaching metrics at various educational levels in the home economics program.

Metrics-Measurement for Today Gallery Books, Los Angeles, CA 90000. 1974.

This filmstrip is a complete course designed to teach the metric system and can be used by both elementary and secondary students. System: an adequate understanding of the definitions and concepts of modern metric units for measurements, for the purpose of feeling secure in their use; the ability to change from one unit of measurement to another within the modernized metric system; the ability to work typical measurement problems within the modernized metric system; and the ability to think metric units, rather than translate to another system, and to make reasonable estimates using metric units; and the ability to convert when necessary to or from the modernized metric system.

Metric Style Guide Council of Ministers of Education, Toronto, Ontario, Canada M55 1V5. 1975.

This guide is designed to enable users to understand and apply SI (Systeme International d'Unites) to everyday life with ease and confidence. It has been written with the intent of being helpful to the greatest number of individuals in the education sector, as well as to the general public.

The Metric System and Its Impact on Business Education Beta Mu Chapter Delta Pi Epsilon, Central Connecticut State College, New Britain, CT 06050. 1976. 51pp.

Metrication suggestions for business and office education classroom teachers include: commonly listed advantages of the metric system, metric education timetables, instructional materials, metric topics for instruction, business, mathematics, and teaching the metric system in typewriting.

Metric Transparency Masters Hobar Publications, St. Paul, MN. 1974.

Includes 17 masters for introduction, 36 for linear, 16 for linear to square, 25 for square to cubic to volume, 21 for volume to mass, and 35 for luminus intensity, electric current, temperature, amount and time.

Metric Rummy Creative Teaching Associates, Fresno, CA 93700. 1976.

Card game designed to help students order metric terms using a rummy format. Grades 4-12.

Metric Spinner Games Creative Teaching Associates, Fresno, CA 93700. 1974.

Designed to provide practice in recognizing and translating to metric equivalents for measures of length, capacity, and weight. Grades 4-9.

Metric 21 (Game) The Math Group, Inc., Minneapolis, MN. 1974.

This card game, which is played like "21" or "Blackjack," helps student think metric.

Mississippi Industrial Arts Metric 500 Instructors Manual Research and Curriculum Unit for Vocational-Technical Education, Drawer DX, Mississippi State, MS 39762. 1974. 19pp. Student material accompanied this text.

The purpose of this manual is to provide industrial arts instructors with information necessary to introduce and teach the metric system to their students. The material is primarily concerned with teaching students how to measure linear distances in metrics. Students must know how to read and use the metric scale in order to design and construct their model racers.

Plan Ahead. . . Metrication and the U.S. Apparel Industry American Apparel Manufacturers Association, Arlington, VA 22209. 1975. 44pp.

The content of this booklet includes information as to the history of metric measurements, metric opportunities, making a metric garment, exporting to the metric world, making metrication a reality, and a bibliography.

Practice in the Metric System The Instructor Publications, Inc., Danville, NY 14437. 1976.

Designed for middle and upper elementary students, these transparency masters allow students to investigate, discover and formulate the concepts of measurement.

Practice in the Metric System: Duplicating Masters Series The Instructors Publications, Inc., Van Nuys, CA 91406. 1976. 20pp.

This book of 20 self-directing duplicating masters has convenient, nonreproducing answers on each master. Review masters are included at intervals in the book to relate concepts and summarize main ideas. It closely coordinates with a set of illustrative charts: *"The Metric System."*

Think Metric NOW! A Step-By-Step Guide to Understanding and Applying the Metric System Follett Publishing Company, Chicago, IL 60607. 1974. 120pp.

This book contains conversion tables, illustrative diagrams, and sample problems. Part one is addressed to metric weights, metric lengths, finding areas in square centimeters, connecting volume and weight, converting celsius reading to fahrenheit and using the power of ten. Problems are listed at end of each chapter. Answers to problems are listed in last chapter of text.

Think Metric Transparencies Instructor's Guide DCA Educational Products, 424 Valley Road, Warrington, PA 18976.

Describes the transparencies in this series. (The transparencies are not available for loan.)

U.S.A. Goes Metric Swani Publishing Company, Roscoe, IL 61073. 1970.

This kit of booklets and catalogs explains what tools are available for purchase and how to use them.

Vocational-Technical Metric Instructional Packages The Center for Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, OH 43210.

This metric instructional package was designed to meet job-related metric measurements needs of students. Each of the units of instruction contains performance objectives, learning activities, and supporting information in the form of text, exercises, and tables. The packages are available in the following business education areas:

Metrics for General Office Clerks, Clerk, Typist, Typists
Metrics for Key Punch Operators
Metrics for Secretarial, Stenography
Metrics for Copy Preparation, Layout and Design Type Composition
Metrics for Litho Photography, Offset Stripping, Offset Platemaking
Metrics for Offset Press Operation
Metrics for Hotel and Lodging
Metrics for Recreation and Tourism
Metrics for Food Distribution
Metrics for Hard Goods Merchandising
Metrics for Soft Goods Merchandising
Metrics for Transportation

APPENDIX H

EXAMPLES OF GRADING PROCEDURES FOR SHORTHAND

APPENDIX H

END OF SEMESTER I

PERCENT

READING: Students read a short selection of material from plate copy and/or homework notes. 15%

140 wpm	A
120 wpm	B
100 wpm	C
80 wpm	D

HOMEWORK AND THEORY QUIZZES: Quizzes should be short and taken from current homework assignment. 10%

DICTATION SPEED RATES: New material, dictated for three minutes, to be transcribed on the typewriter with a minimum of 95% accuracy, three takes required to establish grade. 30%

70 wpm	A
60 wpm	B
50 wpm	C
40 wpm	D

TRANSCRIPTION RATES: Typewritten transcription from homework notes, three minutes, three timings required to establish grade. Five uncorrected errors allowed with penalty of -1 for transcription error and -10 for typing error. 20%

25 wpm	A
21-24 wpm	B
17-20 wpm	C
13-16 wpm	D

CHAPTER TESTS: Material taken from theory presentations of the individual lessons of each chapter. 15%

NON-THEORY QUIZZES: Quizzes in spelling, vocabulary, proofreading, punctuation, and grammar. 10%

END OF SEMESTER II

PERCENT

READING, HOMEWORK, QUIZZES AND/OR LAB: Students read a short selection of material from homework notes. 10%

180 wpm	A
160 wpm	B
140 wpm	C
120 wpm	D

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END OF SEMESTER II (cont't)

PERCENT

DICTATION SPEED RATES: New material, dictated for three minutes, to be transcribed on the typewriter with a minimum of 95% accuracy, three takes required to establish grade. 40%

100 wpm	A
90 wpm	B
70-80 wpm	C
60 wpm	D

TRANSCRIPTION RATES: Typewritten transcription from homework and/or dictated material, three minutes, three timings required to establish grade. Five uncorrected errors allowed with penalty of -1 for transcription error and -10 for typing error. 20%

30 wpm	A
26-29 wpm	B
21-25 wpm	C
15-20 wpm	D

MAILABLE LETTERS: 3 letters, dictated at 60 wpm each letter containing 100-150 words, to be transcribed with complete mailability in 30 minutes. 10%

3 letters mailable	A
2 letters mailable	B
1 letters mailable	C
letters mailable	D

COMPLETE THEORY AND/OR CHAPTER TESTS: 10%

NON-THEORY QUIZZES: Quizzes in spelling, vocabulary, proofreading, punctuation, and grammar. 10%

Standards. In determining the standards for the second year of shorthand, the teacher should take into consideration the following factors: the ability level of the students, the length of time allotted for instruction, the previous achievement of the students, employment requirements of the community, and the goals of the students themselves. When there is a second year of instruction in shorthand, dictation speed building typically represents the first semester of work and emphasis on transcription, the second semester.

The following are presented only as guidelines and could be adjusted upwards or downwards depending upon the ability level of the class.

END OF SEMESTER III

PERCENT

DICTATION SPEED RATES: New material, dictated for three minutes to be transcribed on the typewriter with a minimum of 95% accuracy. Three takes required to establish grade. 40%

110 wpm	A
100 wpm	B
90 wpm	C
80 wpm	D

END OF SEMESTER III (con't)

PERCENT

TRANSCRIPTION RATES: Typewritten transcription from homework and/or dictated material, three minutes, three timings required to establish grade. Five uncorrected errors allowed with penalty of -1 for transcription error and -10 for typing error. 20%

40 wpm	A
36-39 wpm	B
30-35 wpm	C
25-29 wpm	D

MAILABLE LETTERS: 3 letters, dictated at 80 wpm, each letter containing 100-200 words, to be transcribed in 30 minutes with envelopes and carbons. 20%

3 letters mailable	A
2 letters mailable	B
1 letters mailable	C
letters mailable	D

CHAPTER TESTS, COMPLETE THEORY TESTS, AND QUIZZES: 10%

HOMEWORK AND/OR LAB PRACTICE: 10%

END OF SEMESTER IV

PERCENT

DICTATION SPEED RATES: New material, dictated for three minutes to be transcribed on the typewriter with a minimum of 97% accuracy. Three takes required to establish grade. 20%

120 wpm	A
110 wpm	B
100 wpm	C
90 wpm	D

TRANSCRIPTION RATES: Typewritten transcription from homework and/or dictated material, three minutes, three timings required to establish grade. Five uncorrected errors allowed with penalty of -1 for transcription error and -10 for typing error. 20%

50 wpm	A
45-49 wpm	B
40-44 wpm	C
35-39 wpm	D

COMPLETE THEORY, CHAPTER TESTS, AND QUIZZES: 10%

MAILABLE LETTERS: 4 letters, dictated at 80/90 wpm, each letter containing 100-200 words, to be transcribed in 30 minutes with envelopes and carbons. ______

4 letters mailable	A
3 letters mailable	B
2 letters mailable	C
1 letters mailable	D

HOMEWORK AND/OR LAB PRACTICE: 10%

APPENDIX I

Advisory Committees
for
Business Education into the Eighties

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ADVISORY COMMITTEE

OFFICE CAREERS

Ms. Sharon Brunson
Rockford

Ms. Eileen Goodchild
Champaign

Ms. Paula Hackstadt, CPS
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Ms. Edna Miller
Rockford

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Ms. Rebecca Senkus
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Springfield

Mr. Jerry Parker
Springfield

ACCOUNTING

Mr. Lauren Housel
Illinois State Board of Education
Department of Adult, Vocational
and Technical Education
Springfield

Mr. Dean H. Ortinau, CPA
Decatur

Ms. Donna McAlister, CPA
Palatine

Mr. Ken Zika, CPA
Peoria

APPENDIX J

RECORDS MANAGEMENT SYLLABUS SECONDARY EDUCATION

Recommended by the National Education Committee

Association of Records Managers and Administrators

ARMA SYLLABUS

Rationale:

This suggested course outline may be used for a one-semester course in records management on the secondary level. One or more of the topics included in the outline may be taught in the office block, office simulation, modern office, general business, or other business classes of a secondary school.

The *why* behind records management should be emphasized just as much as the *how.* A hands-on approach, not just a theoretical approach, should be used at the secondary level. At this level the daily maintenance of active and inactive records should be of prime concern.

What About "Entry-Level" Records Management Jobs?

A major portion of the activity of all business offices involves the handling of recorded information! Office employees are constantly involved in processing and handling paper—creating documents, using and storing them, searching for stored material needed for use, and disposing of records no longer needed. Offices today need personnel qualified to use records systems and compatible equipment and supplies whether these systems be manual, automated, or computerized.

Data available from the Association of Records Managers and Administrators supports other recent surveys whch have shown that the number of records management jobs are continuing to increase. Specific jobs open to individuals with appropriate secondary training include: records technician, records clerk, records center clerk, micrographics technician, and such typical office jobs as clerks, receptionists, typists, stenographers, and word processing operators.

Objectives:

Specific objectives may include:

1. The student will understand the role and the importance of records management in today's world.
2. The student will know the different types of business records.
3. The student will become familiar with the various records inventorying methods.
4. The student will develop skills in filing and indexing records.
5. The student will file according to the rules and practices of each type of records classification system.
6. The student will develop a sense of system and order necessary to maintain records in a business office.
7. The student will be able to use proper identification, storage, and retrieval methods.
8. The student will become familiar with the hardware and software used in records management.
9. The student will learn how to use a records management manual.
10. The student will learn about the functions and the operations of a records center.
11. The student will become familiar with the fundamentals of micrographics.
12. The student will become familiar with the basic elements of reprographics.
13. The student will become familiar with mail operations.
14. The student will become acquainted with the career opportunities in records management.
15. The student will practice through simulation or another hands-on method the information discussed under each topic.

Textbooks and Related Materials:

Bassett, Ernest, and Goodman, David G. *Alphabetic Filing Procedures.* Cincinnati: South-Western Publishing Company, 1974.

Bassett, Ernest, and Goodman, David G. *Business Filing and Records Control.* Cincinnati: South-Western Publishing Company, 1974.

Bassett, Ernest, and Goodman, David G. *Office Filing Procedures Set.* Cincinnati: South-Western Publishing Company, 1974.

Duchan, Sion A., and Schultheis, Robert A. *Filing Business Names.* Cincinnati: South-Western Publishing Company, 1974.

Duchan, Simon A., and Schultheis, Robert A. *Filing Personal Names.* Cincinnati: South-Western Publishing Company, 1974.

Duchan, Simon A., and Schultheis, Robert A. *Special Filing Problems.* Cincinnati: South-Western Publishing Company, 1974.

Files Management. To be published by ARMA in 1977.

Indexing and Filing Workbook. Chicago: The H. M. Rowe Company, 1971.

Kahn, Gilbert; Yerian, Theodroe; and Stewart, Jeffrey R. *Progressive Filing.* New York: Gregg Division of McGraw-Hill Book Company, 1969.

NARS-GSA Records Management Handbooks. U. S. Government Printing Office. Price List of these handbooks available from the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

Rules for Alphabetic Filing. Published by the Association of Records Managers and Administrators, P. O. Box 281, Bradford, RI 02808, 1972.

Sherster, Joyce. *File Clerk: The Gregg Office Job Training Program.* New York: Gregg Division of McGraw-Hill Book Company, 1973.

Wood, Merle W. *Number Filing on the Job.* Cincinnati: South-Western Publishing Company, 1972.

Suggestions for Supplementing Textbooks and Related Instructional Materials:

1. Field trips to records management installations nearby.
2. Readings in current literature on the topics listed. Records management and administrative management magazines and professional journals, including: *Records Management Quarterly, Administrative Management, Information and Records Management, Modern Office Procedures, The Office, Infosystems, Word Processing, Word Processing World, Office Products News, The Secretary, Today's Secretary.*
3. Student visits to offices for records management interviews.
4. Speakers from offices and records management programs, as well as from vendor companies.
5. Color slide or videotape "field trips" of offices, records centers, equipment, supplies, and related resources.
6. Visual aids, including: films, filmstrips, overhead transparencies, and related media.

Suggested Topical Outline

- I. Introduction to Records Management
  - A. Why a business maintains files
    - 1. Need for storage of records
    - 2. Need to retrieve information
  - B. The role of records management in today's world
    - 1. Importance
    - 2. Scope
    - 3. Purposes
- II. Nature of Business Records
  - A. Correspondence
  - B. Reports
  - C. Forms
  - D. Directives
  - E. Microforms
  - F. Computer output
- III. Records Inventorying Methods
  - A. In-house vs. professional consulting firms
  - B. Questionnaire vs. physical inventory
- IV. Basic Rules for Various Records Classification Systems
  - A. Terms used
  - B. Rules for
    - 1. Alphabetic
    - 2. Geographic
    - 3. Subject
    - 4. Numeric (straight numeric, chronological, terminal digit, middle digit)
    - 5. Phonetic systems such as Soundex
    - 6. Cross referencing
    - 7. Follow up
- V. Records Storage and Retrieval Procedures
  - A. Procedures for maintaining a records system
    - 1. Guides
    - 2. Folders
    - 3. Placement of materials in folders
    - 4. Active and inactive materials
  - B. Handling of material
    - 1. Notations for signaling materials ready for filing
    - 2. Procedures for preparing materials for file
      - a. inspecting
      - b. indexing
      - c. coding
      - d. sorting
      - e. labeling a folder
      - f. inserting material into folder
    - 3. Retrieval procedures
    - 4. Steps for locating a missing record
  - C. Special types of materials
    - 1. Computer tape files
    - 2. Microforms
- VI. Hardware and Software
  - A. Hardware
    - 1. Drawer files
    - 2. Open-shelf files
    - 3. Desk files
    - 4. Card files
    - 5. Rotary files
    - 6. Visible files
    - 7. Vertical files
    - 8. Power files
    - 9. Automated retrieval systems
    - 10. Mechanical systems
  - B. Software that accompanies each type of hardware
- VII. Using a Records Manual
  - A. Organization chart
  - B. Company policies
  - C. Records inventory
  - D. Retention schedule
  - E. Rules for records classification systems
- VIII. Retention and Disposition of Records
  - A. Permanent record identification
  - B. Retention period for various records
  - C. Identification of active and inactive records
  - D. Implementation of retention schedule
  - E. Purging files according to company policy
  - F. Transfer and storage of records
  - G. Disposition of records
- IX. The Records Center
  - A. Reasons for having a records center
  - B. Facility requirements
  - C. Equipment
  - D. Layout
  - E. Commercial records centers
  - F. Managing the records center
    - 1. Acquisitions
    - 2. Search and charge-out procedures
  - G. Emergency planning

X. Fundamentals of Micrographics
  A. Basic elements
    1. Film
    2. Cameras
    3. Lens
    4. Resolution
    5. Reduction ratio
    6. Lighting and density
  B. Microforms
    1. Roll film
    2. Aperture cards
    3. Jackets
    4. Microfiche
  C. Film duplication
  D. COM (computer output microfilm)
  E. Advantages of microfilming

XI. Reprographics
  A. Processes
  B. Operating standards
  C. Characteristics of copy

XII. Mail Operation
  A. Organization and procedures
  B. Equipment
  C. Layout
  D. Cost considerations

XIII. Career Opportunities

Prepared by the 1976-1977 ARMA National Education Committee

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